

YERMOLAYEVA, Ye.Ye.

SAPOZHNIKOV, D.I.; YERMOLAYEVA, Ye.Ye.

Varvara Aleksandrovna Brilliant-Lerman; obituary. Bot. zhur. 39 no.6:
940-943 N-D '54.
(MLRA 8:2)

1. Botanicheskiy institut im. V.L.Komarova Akademii nauk SSSR,
Leningrad.
(Brilliant-Lerman, Varvara Aleksandrovna, 1888-1954)

YERMOLAYEVA, Yekaterina

Daily and seasonal course of photosynthesis and the accumulation
of dry substance in potatoes, tomatoes and mal'chorka. Trudy Bot.
inst. Ser. 4 no. 11:208-224 '56.
(Photosynthesis) (Potatoes) (Tomatoes) (Tobacco) (MIRA 9:9)

Ye Ya YERMOLAYEVA

USSR/Cultivated Plants - Potatoes, Vegetables, Melons, etc.

M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15634

Author : Ye.Ya. Yermolayeva

Inst : The Botanical Institute of the Academy of Sciences USSR.

Title : The Effect of Large Phosphorous Dosage on Tomato Cold
Resistance.
(Vliyanie vysokikh dos fosfore na povysheniye kholodo-
stoykosti tomatov).

Orig Pub : Dokl. AN SSSR, 1956, 111, No 5, 1130-1133

Abstract : At the Botanical Institute of the Academy of Sciences
USSR the effect of phosphorous dosage was studied in the
Gruntovyy Gribovskiy variety at lower temperatures
with an eye toward several physiological processes in
the tomato. The experiment was set in soil cultures
according to the schema: double rate of P, double rate

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YERMOLAYEVA, Ye.Ya.

Effect of carbon dioxide concentration of photosynthesis
in cultivated plants. Trudy Bot.inst.Ser. 4 no.13:46-63
'59. (MIR 13:3)
(Photosynthesis) (Potatoes) (Tomatoes)

YERMOLOVA, Ye.Ya.; FILIPOVICH, L.N.; SHILOVA, M.A.

Translocation of assimilates in Perilla at different stage of development [v.s.i.E.]. Trudy Bot. inst. Ser. 4 no. 14:73-88 '60.

(Plants, Motion of fluids in)

(MIRA 14:3)

KOZLOVA, N.A.; YERMOLYAYEVA, Ye.Ya.

Use of biologically active substances in plant protection.
Trudy Len. ob-va est. 74 no. 1:49-52 '63. (MIRA 17:9)

ERMOLAYEVA, Z.V.

EXCERPTA MEDICA Sec.4 Vol.10/3 Microbiology Mar 57

527. ERMOLYEVA Z.V., SUKHAREVA M.E., BLUMENTAL K.V. and ISKRZHITS-KAYA A.I. "The use of biomycin and streptomycin with ekmolin in experimental infection and in clinical cases in the fight against diphtheria carriers (Russian text) PE-DIATRIJA 1955, 5/6 (40-44)

Diphtheria bacilli showed in in-vitro tests their susceptibility toward biomycin and streptomycin with a lesser degree to ekmolin, and the highest susceptibility to the combination of biomycin, streptomycin and ekmolin. This would indicate a synergistic action of all 3 antibiotics. The therapeutic tests also showed the highest effect in the combination of all 3 antibiotics even when used in smaller dosage. Oral administration of biomycin with ekmolin caused in diphtheria carriers a rapid elimination of the bacilli from the throat. Anigstein - Galveston, Tex. (XX,4,6,7,17)

YERMOL'YEVA, Z.V.; VAYSBERG, G.Ye.; GIVENTAL', N.I.; LIMINA, T.N.

Ciine in association with other antibiotics in acute radiation sickness in mice. Antibiotiki 5 no.4:37-41 Jl-Ag '60. (MIR 13:9)

1. Laboratoriya novykh antibiotikov pri kafedre mikrobiologii TSentral'nogo instituta usovershenstvovaniya vrachey.
(ANTIBIOTICS) (RADIATION SICKNESS)

YERMOL'YEVA, Z. V.; FURER, N. M.; VAYSBERG, G. Ye.; RAVICH, I. V.; NIEMIROVSKAYA, B. V.

"New antibiotic preparations and other biologically active compounds of natural origin."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

Dept of Microbiology & Lab of New Antibiotics, Cent Inst for Post-Graduate Training, Moscow.

YERMOL'YEVA, Z. V.; BRAUDE, A. I.; VEDMINA, Ye. A.; FURER, N. M.; VAYSBERG, G. Ye.

"The problems of antibiotic, interferon, bacterial polysaccharides and the resistance of microorganisms."

report presented at 4th Intl Cong, Hungarian Soc of Microbiologists, Budapest,
30 Sep-3 Oct 64.

Inst of Advanced Medical Education, Moscow.

ROZHDESTVENSKAYA, V.I.; NEBYLITSYN, V.D.; BORISOVA, M.N.; YERMOLAYEVA-TOMINA, L.B.

Comparative study of various indexes of the strength of the nervous system in man. Vop. psichol. 6 no.5:41-56 S-0 '60. (MIRA 13:11)

1. Institut psichologii APM RSPFR, Moskva.
(Nervous system)

YERMOLAEVA-TOMINA, L.B.

Individual distinctions in the concentration of attention
and the strength of the nervous system. Vop.psichol. 6
no.2:84-95 Mr-Apr '60. (MIRA 13:7)

1. Institut psichologii APN RSRF, Moscow.
(Attention) (Nervous system)

1. YERMOLOV'CHENKO, YE. Z.
YERMOLOV'CHENKO, YE. Z.; RABOVSKIY, M.G.; POPOV, G.M., ENG.
2. USSR (600)
4. Steel - Heat Treatment
7. Gradual annealing of a steel strip without oxidizing its surface. Prom.energ.
9 no.10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

YERMOL'CHENKO, Ye. Z.

YERMOL'CHENKO, Ye. Z. and RABOVSKIY, M. G. Combined Hardening of Steel Tape without Surface Oxidation (Stupenchataya Zakalka Stal'noy Lenty bez Okisleniya Yeye Poverkhnosti), pp. 7-8 - 1952.

The use of a furnace with an inclined heat chamber is suggested in order to eliminate air circulation and oxydation of steel surfaces before hardening in a lead bath. This suggestion won one of the fourth prizes at the Seventh All-Union Contest on Power Economizing. (Drawings).

SO: PROMYSHLENNAYA ENERGETIKA, No. 10, Oct. 1952, Moscow (1502270)

RYBAKOVA, L.M.; YERMOL'CHIK, S.Z.

Porosity development in copper under the effect of cyclic
heat treatment. Fiz. met. i metalloved. 9 no.5:733-740
Mys '60. (MIRA 14:4)

1. Institut mashinovedeniya AN SSSR.
(Copper—Metallography)
(Thermal stresses)

RYBAKOVA, L.M.; YERMOL'CHIK, S.Z.

Investigating the substructure of copper annealed at various
temperatures. Fiz.met.i metalloved. 15 no.3:439-443 Mr '63.
(MIRA 16:4)
(Copper--Metallography) (Annealing of metals)

ACC NR: AT7003566

(N)

SOURCE CODE: UR/3240/66/000/001/0088/0096

AUTHORS: Kotlyar, I. V.; Yermol'chik, V. N.

ORG: Kaliningrad Technical Institute for the Fish Industry and Management
(Kalininogradskiy tekhnicheskii institut rybnoy promyshlennosti i khozyaystva)

TITLE: On intrinsic stability calculations for gas turbine installations

SOURCE: Kharkov. Politekhnicheskii institut. Energeticheskiye mashinostroyeniye, no. 1, 1966. Teplokhimika i gazodinamika (Heat transfer and gas dynamics), 69-96

TOPIC TAGS: gas turbine, gas compressor, combustion chamber, stability criterion, vibration

ABSTRACT: The intrinsic stability of a gas turbine installation which consists of three turbines, two compressors, and two combustion chambers is analysed. Without considering a regenerator, the study leads to 28 linearised equations that describe the free vibrations of the gas turbine installation. The stability criterion is defined by the quantity Y_j , given by

$$Y_j = \frac{\Delta H_j}{\Delta \omega} = - R_j \frac{d\omega}{d\mu_j},$$

where

$$R_j = \frac{I_{j+1}^2 \rho}{2 \pi F_{j+1}^2},$$

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ACC NR: AT7003566

is the rotor time, I_j is the moment of inertia, and ΔM_j is the excess moment generated on the j-th shaft. Two extreme values are obtained for the stability criterion, one for each compressor shaft. These are:

- 1) $Y_{1a} = A_1$, at $R_1 \rightarrow \infty (\Delta n_1 \rightarrow 0)$
- 2) $Y_{1a} = A_1 - \frac{E_1 E_2}{A_1}$ at $R_1 \rightarrow 0 (\Delta n_1 \rightarrow 0)$.

- 3) $Y_{2a} = A_2$, at $R_2 \rightarrow \infty (\Delta n_2 \rightarrow 0)$
- 4) $Y_{2a} = A_2 - \frac{E_1 E_2}{A_2}$, at $R_2 \rightarrow 0 (\Delta n_2 \rightarrow 0)$.

A specific example is selected and the coefficients in the above 28 equations are evaluated. The results are then given in tabular form. Orig. art. has: 39 equations, 1 figure, and 1 table.

SUB CODE: 21, 20/ SUBN DATE: none/ CHIS REF: 001

Card 2/2

LEVITMAN, Kh. Ya.; YERMOLENKA, N. F.

LEVITMAN, Kh. Ya.; YERMOLENKA, N. F.

Amperometric determination of copper in galvanic vats used for nickel,
zinc, and cadmium plating. Vestsi AN BSSR, Ser. fiz.-tekhn. nav. no. 4:
133-137 '56. (MIREA 10:6)

(Copper)

(Conductometric analysis)

YERMOLENKA, N.N.

TARASENKA, V.R., kandydat gistoricheskikh nauk; ZHUMINA, L.A., kandydat tekhnicheskikh nauk; YERMOLENKA, N.N., kandydat tekhnicheskikh nauk.

"Glass manufacture in ancient Russia" by M.A. Besborodov. Reviewed by V.R. Tarasenka, L.A. Zhumina, N.N. Ermolenko). Vestsi AN BSSR. Ser. fiz.-tekhn. nauk, no. 1:161-163 '57. (MLRA 10:6)
(Glass manufacture--History) (Besborodov, M.A.)

YERMOLENKO, A.F.; NAUMOV, B.S.

Shortcomings in the organization of construction. Avtom., telem. i
sviaz' 9 no.5:17 My '65. (MIRA 18:5)

1. Nachal'nik sluzhby signalizatsii i svyazi Yugo-Zapadnoy dorogi
(for Yermolenko). 2. Nachal'nik tekhnicheskogo otdela sluzhby
signalizatsii i svyazi Zakavkazskoy dorogi (for Naumov).

YERMOLENKO, A.P.

Participation of the students of a technical school in practical projects. Avtom, telec. i svias' 4 no.11:12 N '60. (MIRA 13:11)

1. Predsedatel' Gosudarstvennoy kvalifikatsionnoy komissii tekhnika imeni N.Ostrovskogo.
(Railroads---Employees---Study and teaching)
(Kiev---Technical education)

YERMOLENKO, A.F.

Mechanized devices for repairing communication lines. Avtom.,
talem., i sviaz! 5 no.10:23-24 0 '6l. (MIRA 14:9)

1. Nachal'nik sluzhby signalizatsii i svyazi Yugo-Zapadnoy
dorogi.
(Telephone lines) (Telegraph lines)

YERMOLENKO, A.F.

The workers of the Zhmerinka railroad district work like all true
Communists should. Avtom., telem.i sviaz' 6 no.4120-22 Ap '62.
(MIRA 15:4)

1. Nachal'nik sluzhby signalizatsii i svyazi Yugo-Zapadnoy
dorogi.

(Railroads--Employees) (Railroads--Signaling)

YERMOLENKO, A.F.

Efficient work of volunteer design workers. Avtom., telem. i
sviaz' 6 no.9:31-32 8 '62. (MIRA 15:9)

1. Nachal'nik sluzhby signalizatsii i svyazi Yugo-Zapadnoy dorogi.
(Railroads—Employees)

YERMOLENKO, A.I., professor

Lage results of rectocolopexy according to the author's method,
Khirurgiia 32 no.6:38-40 Je '56. (MIRA 9:10)

1. Iz gospital'noy klinik khirurgicheskoy kliniki (dir. - zasluzhennyy deyatel' nauki prof. A.V.Smirnov) LSOMI.
(COLON, surg.
recto-colopexy, method)
(RECTUM, surg.
same)

YEMOLENKO, A.I., professor; KURBANGALIEV, S.M., professor; EL'IMERG, G.A..
doctor-metitsinskikh nauk

Seventieth birthday of Aleksandr Vasil'evich Smirnov. Vest.khir.
78 no.2:154-155 P '57.
(MLRA 10:3)
(SMIRNOV, ALEXANDER VASIL'EVIICH, 1886-)

TERMOLENKO, A.I., Prof., FARBERMAN, V.I., kand.med.nauk., SITKEVICH, V.Yu.

Current picture of the patients in a septic surgery department and
polyclinic. Sov.med. 22 no.11:109-113 N'58 (MIRA 11:11)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. A.V. Smirnov)
Leningradskogo sanitarno-gigiyenicheskogo instituta.
(HOSPITALS,
septic surg., department (Eng))
(OUTPATIENTS SERVICES,
surg. (Eng))

YERMOLENKO, A.I.

Late results of Ermolenko's rectocolopexy in rectal prolapse.
Trudy LSGMI 39:333-346 '58. (MIRA 12:8)

1. Katedra gospital'noy khirurgii Leningradskogo sanitarno-gigienicheskogo meditsinskogo instituta (zav.kafedroy - z.d.n., prof.A.V.Smirnov).

(RECTUM, dis.
prolapse, rectocolopexy (Rus))

(Yerinoeskij, A.P.)

IP INFO
40(3)

67/30

SOV/19-59-15-82/312

AUTHORS: Perel'man, Ye.G., Ladygina, A.A., Vermolensk, A.P.,
Markinov, A.B.; and Kashiteley,

TITLE: High-Strength Steel for Welded Constructions

PERIODICAL: Nyulleten' isobrately, 1959, Nr 15, p 29 (USSR)

ABSTRACT: Glass 184, 110. № 121456 (597636/22 of 18 April 1958). A high-strength steel containing nickel, chrome, silicon, manganese, vanadium, and tungsten. To improve the strength of the steel, the silicon and chrome content is increased to 1.5% and the percentage of components is as follows: carbon - 0.16 to 0.32%, silicon - 0.80 to 1.50%, nickel - 0.80 to 1.50%, vanadium - 0.10 to 0.25%, manganese - 0.50 to 0.80%, chrome - 0.80 to 1.50%, and tungsten - 0.50 to 1.20%; the sulfur and phosphorus content - not higher than 0.025%.

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AUTO

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001962820003-0

YERMOLENKO, A.P.; KOROLEVA, N.V.; KOROLEV, N.V.; LEONOV, Yu.V.

Quenching of hardened ferritic-austenitic chrome-nickel steel.
Metallolved. i term. obr. met. no. 12:51-55 D 65.
(MIRA 18:12)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001962820003-0"

SOV/133-59-1-20/23

AUTHORS: Yermolenko, A.P., Candidate of Technical Sciences
and Konstantinov, N.I., Engineer

TITLE: The Use of Steel 38KhRA for the Manufacture of Large
Parts (Primeneniye stali 38KhRA dlya izgotovleniya
krupnogabarytnykh detalej)

PERIODICAL Stal', 1959, Nr 1, pp 85 - 87 (USSR)

ABSTRACT: Structural steel 38KhA possesses a low hardenability due
to which parts of a cross-sectional area above 150 mm,
manufactured from this steel, have lower and unstable
mechanical properties. As an increase in hardenability
can be obtained by alloying with boron, an investigation
was carried out as to the applicability of boron steel
38KhRA (GOST 4543-57) for manufacturing machine parts of
a cross-sectional area up to 200 mm. The experimental
38KhA steel was produced in a 10-ton basic electric
furnace, tapped into 2 ladles to one of which boron was
added. Final deoxidation was done in the ladle according
to two modifications: 1) aluminium (0.5 kg/t) was
placed into the ladle before tapping, then when the ladle
was 1/3 full, ferrotitanium (0.013%) and a 20% ferroboron
was added (0.0035%); the metal retained in the ladle for
8 minutes and then teemed into ingots; 2) as above,

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The Use of Steel 38KhRA for the Manufacture of Large Parts

but without the addition of ferrotitanium. Chemical compositions of the steels obtained, their hardenability (Figure 1) and mechanical properties (Table 1) are given. It was found that with the exception of hardenability mechanical properties of boron steels, deoxidised with and without titanium, did not differ so that in subsequent heats only deoxidation with aluminium was used. Further heats were done in a 35-ton basic open-hearth furnace. Deoxidation was effected by placing 300 kg of 45% ferrosilicon on the bottom of the ladle and when it was 1/3 full aluminium was added (0.5 kg/t) followed by ferroboron (0.0035%). Steel was retained in the ladle for 8 minutes and then teemed into 1.5-ton ingots. Ingots were rolled into billets for shafts for turbo-boring machines. The comparison of hardenability of the steel without and alloyed with boron is shown in Figure 2 and mechanical properties before and after hardening in Tables 2 and 3, respectively. On the basis of the results obtained, steel 38KhRA is recommended for the manufacture of shafts of turbo-boring machines as well as a replacement

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SOV/133-59-1-20/23

The Use of Steel 38KhRA for the Manufacture of Large Parts

for steels 38KhA and 40Kh for manufacturing parts of a cross-sectional area of up to 200 mm, when due to the low hardenability of these steels their impact strength is below that required.

There are 2 figures and 3 tables.

Card3/3

YERMOLENKO, Mariya Nikitichna; TORKAYLO, I., red.

[Prospects for the specialization and distribution of cattle growing] Perspektivy spetsializatsii i rammeshcheniya skotovodstva. Minsk, Urozhai, 1965. 79 p.
(MIRA 19:1)

YERGOLIKO, A.S., aspirant

Morphology of the spinal ganglia in hypertension. Mirav. Turk.
(MIRA 13:5)
3 no.6:20-24 N-D '99.

1. Iz kafedry patologicheskoy anatomi (zav. - prof. O.Ya. Reshabek)
Turkmenstogo gosudarstvennogo meditsinskogo institut im. I.V.
Stalina.
(HYPERTENSION) (NERVES, SPINAL)

YERMOLENKO, A.S.; aspirant

Morphological condition of the nerve elements in various parts of
the skin of persons dying from hypertension. Zdrav. Turk. 4
no. 3:20-26 My-Je '60. (MIRA 13:10)

1. Is kafedry patanatomii (sav. - prof. O.Ia. Reshabek)
Turkmenstakogo gosudarstvennogo meditsinskogo instituta im.
I.V. Stalina.
(SKIN—INNERVATION) (HYPERTENSION)

REZHABEK, O.Ya., prof.; YERMOLENKO, A.S., aspirant

Morphological changes in the radix posterior nervorum spinalium in persons dying from hypertension. Zdrav. Turk. 4 no.4:28-32 Jl-Ag '60. (MIRA 13:9)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. O.Ya.Rezhabek) Turkmenstogo gosudarstvennogo meditsinskogo instituta im. I.V.Stalina. (NERVES, SPINAL) (HIPERTENSION)

YERMOLENKO, A. S. Cand Med Sci -- "Morphological state of the nervous elements
of various parts of the skin of ~~people who died~~ ^{persons having} hypertension." Ashkhabad,
1961 (Stalinabad State Med Inst im Abuali Ibn-Sino). (Kl., 4-61, 208)

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S/048/61/025/012/011/022
B117/B104

AUTHORS: Yermolenko, A. S., and Shur, Ya. S.

TITLE: The nature of the coercive force in alloys of the "Alnico" type

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25,
no. 12, 1961, 1479 - 1483

TEXT: Alloys of the system Fe-Ni-Al differ from other age-hardening alloys used for permanent magnets so far as their maximum coercive force is not due to quenching the material from the temperature of the single-phase state and subsequent tempering (treatment of type I) but rather to cooling at a certain critical rate and tempering (treatment of type II). The difference between the two types of treatment was studied in the present paper, basing on studies of magnetic properties of monocrystals of an alloy containing 24% Co, 14% Ni, 8% Al, 3% Cu, 51% Fe. The disk-shaped specimens were 0.35 mm thick and 6 mm in diameter. Their surfaces coincided with the crystal plane (100) with an error of up to 2°. The heat treatment was made in an argon atmosphere. A rotary magnetometer was

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used to measure the magnetic characteristics. The coercive force was measured at room temperature by the usual ballistic method. The variation in coercive force and torque amplitudes was measured at 625°C in a field of 16,600 oe, according to the tempering time. The coercive force of specimen no. 2 (treatment of type II) rapidly reaches its maximum value of 430 oe and remains practically constant beyond this value. After tempering specimen no. 1 (treatment of type I) for 60 hours, its coercive force reaches a value of 90 oe at 625°C which can, however, be increased by additional tempering at 700°C and subsequent annealing at 625°C. After a 54-hour tempering, both specimens exhibit identical torque amplitudes which even increase in no. 1 if the process is continued. In specimen no. 1, the torque amplitudes are negative in the entire field and slightly dependent on the field. In no. 2, the amplitudes are positive in fields of less than 8000 oe and negative in stronger fields. After a 60-hour tempering at 625°C the amplitudes are positive in the entire field. In the present case, the shape of the torque characteristics was related to the presence of two types of anisotropy in the specimen: (1) crystallographic magnetic anisotropy and (2) an anisotropy related to the form of

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The nature of the coercive ...

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precipitates (anisotropy of the stray fields). During the decay the last-mentioned type plays an ever more important role: the characteristics are shifted from the negative to the positive range. After a 60-hour tempering at 625°C the torque characteristics for both specimens have practically identical amplitudes over a wide range of fields, whereas the coercive forces differ from each other by a factor of nearly 5. Investigation of the saturation magnetization I_s and of the coercive force in the temperature range, where these characteristics change reversibly, has shown that both specimens agree as to I_s and temperature dependence. This indicates that independent of the type of treatment, the phases resulting from decay are of identical or similar composition. Great differences in the relative amounts of the phases are also unlikely. After tempering the specimens for 60 hours, rotational hysteresis as a function of the strength of the external field exhibited the same character as ordinary hysteresis in an alternating magnetic field. The large differences in the coercive force of the specimens, produced by the two types of treatment, are attributed to a definite distribution of grains

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The nature of the coercive...

according to their coercive force. The special advantage of the treatment of type II is that a structure with almost equal grain sizes can be obtained. The grain size corresponds to the coercive force. The authors thank L. V. Smirnov for the growing of monocrystals, and L. M. Magat for having determined their orientation. There are 5 figures and 9 references: 4 Soviet and 5 non-Soviet. The four most recent references to English-language publications read as follows: Wohlfarth, E. P., Philos. Mag., Suppl., 8, 87 (1959); Clegg, A. G., McCaig, M., Proc. Phys. Soc. London, B, 70, 817 (1957); Nesbitt E. A., Williams H. J., Bozorth R. M., J. Appl. Phys., 25, 1014 (1954); Fisher J. S., Hollomon J. H., Turnbull D., J. Appl. Phys., 19, 775, (1948). ✓

ASSOCIATION: Institut fiziki metallov Akademii nauk SSSR (Institute of Physics of Metals of the Academy of Sciences USSR)

Card 4/4

18.1142

41516
S/126/62/014/003/003/022
E021/E435

AUTHORS: Yermolenko, A.S., Shur, Ya.S.

TITLE: The mechanism of thermomagnetic treatments of high-coercive alloys of the alni and alnico types

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.3, 1962,
348-357

TEXT: The aim of the work was to investigate the influence of the initial structural state, temperature, time and other conditions during isothermal treatment in a magnetic field on the formation of uniaxial magnetic anisotropy of the alloys. Single crystals of alnico (14% Ni, 24% Co, 8% Al; 3% Cu, 51% Fe) and alni (26% Ni, 14% Al, 3% Cu, 57% Fe), prepared from a melt produced in a high frequency vacuum furnace, were used. After prolonged heating near the melting point, the bars contained coarse crystals. Single crystalline discs with diameter 5 to 6 mm and 0.4 to 0.5 mm thick were cut from the bars in the (100) and (110) planes. After various heat treatments (in an argon atmosphere) both with and without a magnetic field, values of the mechanical torque and the coercive force along and perpendicular to the

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E021/E435

The mechanism of thermomagnetic ...

direction of the magnetic field were determined at room temperature. The mechanical torque was measured in fields of 4700, 9200, 13700 and 19400 oersteds. Curves were obtained characterizing the total anisotropy of the crystals. Results: the uniaxial anisotropy during thermomagnetic treatment of the alloys forms independently of the initial structural state at all temperatures below the Curie point of the strongly magnetic phase provided diffusion occurs during the process. During their process of growth, the shape anisotropy of the precipitates, forming during decomposition of Fe-Ni-Al alloys, increases; the cause being that this leads to a decrease in the magnetostatic energy and additionally it may also be due to the anisotropy of the energy of the surface tension between two phases. Thermomagnetic treatment of the alloys results in the orientation of the precipitates with their long axes along the direction of the magnetic field. This orientation may occur both during nucleus-formation of the precipitate and at later stages of decomposition of the solid solution. In the latter case reorganization of the structure of the alloys occurs both by changes in form of the

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E021/E435

The mechanism of thermomagnetic ...

precipitate and by growth of some particles at the expense of others. There are 8 figures and 1 table.

ASSOCIATION: Institut fiziki metallov AN SSSR
(Institute of Physics of Metals AS USSR)

SUBMITTED: June 11, 1962

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S/126/62/014/003/016/022
E073/E420

AUTHORS: Shur, Ya.S., Magat, L.M., Yermolenko, A.S.

TITLE: On the relation between the crystal structure and the magnetic properties of alnico

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.3, 1962,
458-461

TEXT: So far, the nature of the structural transformations which lead to a reversible change in the magnetic properties of alnico has not been resolved and the authors considered it of interest to try to observe these transformations by accurate measurement of the lattice parameters and a determination of the average distance between defects from the positions of the satellites on the X-ray spectra. Specimens in the form of discs and plates cut from single crystals in the plane (100) of the alloy (24% Co, 14% Ni, 8% Al, 3% Cu, remainder Fe) were used in studying the temperature dependence of the coercive force and the saturation magnetization by means of a rotary magnetometer. It was found that these properties do not depend on the preceding heat treatment but are determined solely by the last tempering temperature, which

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S/126/62/014/003/016/022
E073/E420

On the relation between ...

indicates that the magnetic properties of coherent defects and of the matrix change reversibly with changing temperature. Regardless of the previous heat treatment, tempering at 560°C led to the same value of the lattice parameters. Further heating to higher temperatures brings about an increase in the lattice parameter which approaches the value pertaining to a specimen quenched from 1250°C; tempering at 560 to 750°C leads relatively quickly to a certain state of the solid solution for each temperature regardless of the previous heat treatment. It is concluded that when cooling from 1250°C at a critical rate defects form which are coherently interconnected with the matrix and are distributed more or less periodically; the lattice parameter of the solid solution decreases somewhat which probably occurs owing to defects in the Y₂ phase. Due to these structural changes, the coercive force increases. Tempering at 560°C leads to a further change in the state of the solid solution and to a redistribution of the components between the matrix and the coherent defects. The obtained data indicate that the reversible changes in the saturation magnetization and the

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8/126/62/014/003/016/022
E073/E420

On the relation between ...

coercive force of alnico are due to reversible changes in the state of the matrix and coherent defects corresponding to the equilibrium phases β_2 and β ; the irreversible changes in the coercive force are due to irreversible growth of coherent defects. There are 1 figure and 1 table.

ASSOCIATION: Institut fiziki metallov AN SSSR
(Institute of Physics of Metals AS USSR)

SUBMITTED: July 11, 1962

Card 3/3

ACCESSION NR: API013090

S/0126/64/017/001/0031/0039

AUTHORS: Yermolenko, A. S.; Shur, Ya. S.

TITLE: Magnetic structural analysis of high coercivity Alnico alloy

SOURCE: Fizika metallov i metalloved., v. 17, no. 1, 1964, 31-39

TOPIC TAGS: Alnico alloy, magnetic structure, coercivity, saturation magnetization, crystallographic anisotropy, uniaxial anisotropy, tempering, annealing, quenching, rotary magnetometer

ABSTRACT: The temperature dependence of saturation magnetization, coercive force, and constants of crystallographic and induced anisotropy of Alnico alloy was investigated. The specimen was obtained by melting the alloy (24% Co, 11% Ni, 8% Al, 3% Cu, and the rest Fe) in a high-frequency furnace in vacuum. The saturation magnetization was investigated by Sucksmith's method (W. Sucksmith. Proc. Roy. Soc. 1939, A170, 551). The specimens were prepared in the form of parallelepipeds of dimensions 5 x 0.7 x 0.7 mm. The thermal treatment of the specimen was performed in an atmosphere of argon or under vacuum in a specially designed apparatus which enabled the quenching of the specimen in water, then chilling it at a desired rate. The relative error in the measurement of the saturation magnetization did not

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ACCESSION NR: API013090

exceed 1%. The temperature dependence of the constants of anisotropy and the coercive force was studied with the aid of a rotary magnetometer. For this experiment the specimen was prepared in the form of a disk 6 mm in diameter and 0.5 mm thick. The constant of anisotropy was obtained by a harmonic analysis of the torque curves. Ballistic methods were used for measuring small values of the coercive force and for studying its angular dependence. The effect of heating the specimen up to 600°C and then cooling it was to increase the constant of anisotropy at room temperature. It was found that at high coercive states (final tempering at 560°C) the alloy showed two phases sharply distinguished by their saturation magnetization, I_{s1} - about 1600 gauss and I_{s2} - about 100 gauss. The constant of uniaxial anisotropy could be computed from the formula $K_u = - (I_u - I_{s1})^2 (N_u - N_s)^2 / I_{s1}^2$, where N_u and N_s are magnetization factors and V_1 , V_2 are relative phase volumes. The values computed from this and the experimental values agree. The nature of structural change and the mechanism of formation of highly coercive states are discussed. Orig. art. has: 7 figures and 3 formulas.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Physics of Metals, AN SSSR)

Card 2/3

ACCESSION NR: AP4113090

SUBMITTED: 21May63

SUB CODE: MM, 28

NO REF Sov: 003

ECL: 00

OTHER: ONS

Card 3/3

REF ID: A6629130
EFP(a)/EFP(t)/EPI IJP(c) JD/HW

SOURCE CODE: UR/0048/66/000/000/1046/1049

AUTHOR: Yermolenko, A.S.

ORG: Institute of Metal Physics, Academy of Sciences, SSSR (Institut fiziki metallov Akademii nauk SSSR)

TITLE: Contribution to the theory of magnetic annealing of high-coercivity alloys of the Ticonal type [Report, All-Union Conference on the Physics of Ferro- and Anti-ferromagnetism held 2-7 July 1965 in Sverdlovsk]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 1046-1049

TOPIC TAGS: ferromagnetic material, iron base alloy, aluminum containing alloy, nickel containing alloy, cobalt containing alloy, titanium containing alloy, annealing, magnetic field, magnetic anisotropy

ABSTRACT: The author and collaborators (Fiz. metallovedeniye, 13, 540 (1964) have previously concluded that, contrary to the early opinion of L. Neel (Compt. rend., 223, 100 (1947)), it is not only the magnetostatic energy during the magnetic anneal that determines the orientation of the anisotropic hard magnetic inclusions in high-coercivity alloys of the Alnico and Ticonal type, but that elastic energy also contributes to the shape anisotropy and the orientation of the inclusions. The effect of elasticity should be much greater in Ticonal than in Alnico, owing to the greater difference in Ticonal between the lattice parameters of the two phases. To explore

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L 08763-67

ACC NR: A96029130

In this conclusion the author has investigated the effects of different heat treatments in a magnetic field on the cubic and uniaxial anisotropies and the retentivity of Ticonal single crystals (34Co-14Ni-7Al-4Cu-5Ti-0.2S-35.8Fe) and has compared the results with the corresponding data on Alnico. Specimens quenched in the absence of a magnetic field had a small positive cubic anisotropy. When the specimens were annealed in a magnetic field parallel to a [101] axis they showed not only uniaxial anisotropy, but also a large negative cubic anisotropy. When the annealing field was inclined as much as 20° to the nearest [101] axis, the easy magnetization axis of the specimen was in the [010] direction, and was not inclined toward the direction of the annealing field, as in the case of Alnico. When the annealing field was applied in the direction of a diagonal axis ([011]) the specimen showed no uniaxial anisotropy, but had a large (negative) cubic anisotropy. It is concluded that in Ticonal, the effect of elasticity is predominant in determining the shape anisotropy and orientation of the inclusions. There is a footnote acknowledging that the crystals were grown under the direction of L.V.Smirnov. Orig. art. has: 2 tables.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 001 OTH REF: 008

Card 2/2 bc

YERMOLENKO, A.S.; MELKISHEVA, E.N.; SHUR, Ya.S.

Dependence of the effect of thermomagnetic treatment on the orientation of the magnetic field in single crystals of the alnico-type alloys. Fiz. met. i metalloved. 18 no.4:540-552
O '64. (MIR 18:4)

1. Institut fiziki metallov AN SSSR.

BELOUSOV, A.D., doktor tekhn.nauk, prof.; YERMOLENKO, A.V., inzh.

Study of the thermal resistances of multilayer elements.
Trudy NIISF no.1:18-21 '62. (MIRA 15:11)
(Heat--Transmission)

GREKOV, I.A., gornyy inzh.; ANTIPOV, V.A., gornyy inzh.; YERMOLENKO, A.
Ye., gornyy inzh.

Reorganization of mining operations in the mines representing
capital assets in an important potentiality for the improvement
of technical and economic indices. Ugol' 36 no.8:30-33 Ag '61,
(MIRA 14:9)

1. Trest Shakterskantratsit kombinata Stalimugol' (Donbass).
(Coal mines and mining)

ANTIFOV, V.A., inzh.; YERMOLENKO, A.Ye., inzh.; POGREBNOY, V.M., inzh.

Fire extinction at the Donets Basin mine "Anna." Bezop.truda v
prom. 6 no.6:7-8 Je '62. (MIRA 15:11)

1. Shakhterskiy trest ugol'nykh predpriyatiy kombinata Rostovugol'
Ministerstva ugol'noy promyshlennosti SSSR.
(Donets Basin—Mine fires)

IVANOV, S.T.; YERMOLENKO, E.A., elektromekhanik

Converter instead of a buzzer. Avtom., telem. i sviaz' 9
no.11:33-34 N '65. (MIRA 18:12)

1. Starshiy elektromekhanik Kotel'nikovskoy distantsii
Privolzhskoy dorogi (for Ivanov).

YERMILENKO, G.N., economist

Analyzing the factors of overhead cost reduction and the reduction
of the cost of glass. Stek. i ker. 22 no.6:35-37 Je '65.
(MIRA 18:6)

1. Institut ekonomiki i organizatsii promyshlennogo proizvodstva
Sibirskogo otdeleniya AN SSSR.

YEEMOLENKO, G.N., inzh.

Pay more attention to questions of economic analysis. Stek.
i ker. 20 no.6:33-35 Je '63. (MIRA 16:6)

1. Institut ekonomiki i organizatsii promyshlennogo preiz-
vedstva Sibirskego otdeleniya AN SSSR.
(Glass manufacture—Accounting)

Yermolenko, I.
YERMOLENKO, I., inzh.

Standard plans for prefabricated one- and two-story apartment houses.
Gor. i sel'. stroi. no.11:11-12 N '57. (MIRA 11:1)
(Architecture--Designs and plans)
. (Apartment houses)

YERMOLENKO, I.

Hand-operated pneumatic lubricant grease pump. Avt. transp. 37
no. 10:54 0 '59.
(MIRA 13:2)

1. Glavnnyy mekhanik Krasnodarskogo avtotresta,
(Automobiles--Lubrication)

YERMOLENKO, I., inzh.; KOTSYUBA, M., inzh.

Modernization of the M-2407 machine tool for boring cylinders. Avt.transp.
4 no.8:49-50 Ag '62. (MIRA 16:4)
(Drilling and boring machinery—Technological innovations)

YERMOLENKO, I.; MAKAROV, G., inzh.-konstruktor

Operating stands for tire dismounting. Avt.transp. 40 no.2:20-22
(MIRA 15:2)
F "62.

1. Krasnodarskoye upravleniye avtotransporta. 2. Glavnnyy
mekhanik Krasnodarskogo upravleniya avtotransporta (for Yermolenko).
(Motor vehicles--Tires)

YERMOLENKO, I., inzh.; KOTSYUBA, M., inzh.

Mechanized lubrication in automotive transportation units.
Avt. transp. 41 no. 9:17-22 S '63. (MIRA 16:10)

1. Krasnodarskoye avtoupravleniye.

YERMOLENKO, I. N.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
General and Physical Chemistry

② Chem
New methods of determination of swelling of nitrocellulose
I. N. Yermolenko and A. I. Mekhlis. Chilled J. (U.S.S.R.)
14, 421-2 (1953) (Engl. translation).—See C.A. 47, 14671.

H. L. H.

3

USSR

Equation for the kinetics of swelling. M. V. Tsvetkov and L. N. Sosulin. Zhur. Tekhn. Kibernetika, No. 1, p. 37, 1958. An equation is derived for the kinetics of swelling of rubber. In relation to the movement the rubber is considered as an osmotic cell with a semipermeable membrane formed by the interphase. The osmotic pressure caused by the kinetic energy of the free segments is counteracted by the strains of the elastic and the rate of diffusion of water across the boundary. The proportionality of the difference between these forces and the surface of the sample is given at this point of departure. The equation is obtained. It is derived for isotropic swelling: $b = (1/\lambda) \log(1 + i)$, where $i = v/m$ is the ratio of the wt. of absorbed liquid v to the wt. of the sample m . On coordinate axes $(v/m - i)$ vs. λ there is a straight line passing through the origin. This is confirmed by swelling rubber in a 1% solution of n -dinitrobenzene. Points which facilitate drawing a line of best fit are given. It is shown that

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In the successive filing of bills in i.e., the rate of swelling	Mr. Bown						

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001962820003-0"

YERMOLENKO, I. N.; MAZEL', M. I.; ERMOLENKO, N. P.

Vulcanization

Role of a polar component of mixed media in the swelling of vulcanizates. Dokl. AN SSSR.
89, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. UNCLASSIFIED.

YERMOLENKO, I. N.

YERMOLENKO, I. N. --"Spectral Chemical Investigation of Oxidation of Cellulose."
*(Dissertations for Degrees in Science and Engineering Deferred at USSR Higher
Educational Institutions) Belorussian State University V. I. Lenin, Minsk, 1955

SO: Knjzhnaya Letopis', No. 24, 18 Jun 55

* For Degree of Candidate in Chemical Sciences

PAVLYUCHENKO, M.M.; YERMOLENKO, I.N.

Kinetics of the oxidation of cellulose by nitrogen dioxide.
Uch.zap.BGU no.24:138-148 '55. (MIRA 10:1)
(Cellulose) (Nitrogen dioxide)

YERMOLENKO, I. N.

USSR/Chemistry of High Molecular Substances.

F

Abs Jour : Referat Zhurnal Khimiya, No 6, 1957, 19419.

Author : R.G. Zhabkov, I.N. Yermolenko.

Inst : Academy of Sciences of White-Russian SSR.

Title : Infrared Spectra of Cellulose Materials in Shape of
Transparent Films Produced From Filaments Under High
Pressure.

Orig Pub : Izv. AN BSSR. Ser. Fiz.-Tekhn. N., 1956, No 1, 15-24.

Abstract : The authors record the imperfections of methods of
the study of infrared spectra of cellulose materials,
which methods are based on the application of im-
mersion liquids and other substances, permitting to
obtain transparent compounds, as well as the imper-
fections of the study of cellulose in its reclaines
form. The authors developed a method of preparing
films of fibrous cellulose compounds by their com-
pression under the pressure of up to 40,000 kg/cm.
The study of spectra of such films showed that their

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-10-

YEMOLENKO, I.N.; PAVLYUCHENKO, M.M.

Oxidation of cellulose. Uch.sap. BGU no.29:36-59 '56.
(Cellulose) (Oxidation)

(MIRA 11:11)

PAVLYUCHENKO, M.M.; YERMOLENKO, I.N.

Spectrum analysis of products formed during alkaline destruction
of oxidized cellulose. Uch.sop. BOU no.29:60-71 '56.
(Cellulose--Spectra) (MIRA 11:11)

YEMCLENKO, I.N.; PAVLYUCHENKO, N.N.

Acid hydrolysis of oxidized cellulose. Uch.zap. BGU no.29:
72-86 '56. (Cellulose) (Hydrolysis) (MIRA 11:11)

YURMOLENKO, I.N.

PRIKHOT'KO, A.F.

24(7) p.3 PHASE I BOOK EXPLOITATION Sov/1365

L'vov, Universitet

MATERIALY X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1:
 Molekul'arnaya spektroskopiya (Papers of the 10th All-Union
 Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy)
 [L'vov] Izd-vo L'vovskogo un-ta, 1957. 499 p. 8,000 copies
 printed. (Series: Itsi: Pis'mennyi skrynyi, vyp. 3/4)

Additional Sponsoring Agency: Akademiya nauk SSSR. Naukovaia po
 spektroskopii. Ed.: Gaser, S.L.; Tech. Ed.: Gareyev, T.V.;
 Editorial Board: Lavitsberg, G.S., Academician (Resp. Ed., Deceased),
 Repertit, B.S., Doctor of Physical and Mathematical Sciences,
 Fabelin'skiy, I.L., Doctor of Physical and Mathematical Sciences,
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 Candidate of Physical and Mathematical Sciences, Klimavskiy, L.S.,
 Candidate of Physical and Mathematical Sciences, Mil'janetskiy, V.S.,
 Candidate of Physical and Mathematical Sciences, and Glazermann,
 A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Yeliseyev, Yu. A., L.A. Ignat'ev, and A.N. Shabodash.
 Vacuum Container for the IR-1 Infrared Spectrometer

371

Gochikovskiy, V.P. Complex Structure and Nature
 of the Absorption Spectra and Fluorescence of
 Magnesium Phthalocyanine and Chlorophyll

372

Svirinovich, O.P., J.M. Vermaleskiy, A.N. Sovetnikov,
 and E.N. Salov'yev. Electron Spectra of Chlorophyll
 and Phaeophytin and Metal-derivatives

373

Morinov, A.S. Effect of Spacing of Substituents
 on the Absorption Spectra and Fluorescence of
 Metal-derivatives of Anthracene

374

Pishchal'nikov, A.I., N.Y. Malikhina, and O.P. Nechkin.
 Absorption Spectra in the Ultraviolet Range and
 the Molecular Structure of Triazine Derivatives

375

Card 29/30

Yermolenko, I. N.

51-3-6/14

AUTHORS: Gurinovich, G. P., Yermolenko, I. N., Sevchenko, A. N.
and Solov'yev, K. N.

TITLE: Certain Optical Properties of Chlorophyll and Metal
Derivatives of Pheophytin. (Nekotoryye opticheskiye
svoystva khlorofilla i metalloproizvodnykh feofitina.)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.III, Nr.3, pp.237-245.
(USSR)

ABSTRACT: Absorption and polarized luminescence spectra of
chlorophyll, chlorophyllide, pheophytin and metal
derivatives of pheophytin were studied. Chlorophyll
was obtained from leaves of nettle. Chlorophyllide was
produced by fermentation of Heracleum leaves. Pheophytin
was prepared by a method described earlier (Refs.4, 5).
Metal derivatives of pheophytin were produced by adding to
an alcohol solution of pheophytin dry salts of metals
(mainly acetates). These solutions were kept at room
temperature for 20 hours and then heated at 50°C for
2 hours. Spectra of polarization of luminescence of the
solutions of chlorophyll, chlorophyllide, pheophytin,
and absorption spectra of the same three substances are

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51-3-6/14

Certain Optical Properties of Chlorophyll and Metal Derivatives of Pheophytin.

given in Fig.2. Figs.3 and 4 show absorption spectra of the solutions of pheophytin, silver pheophytinate, zinc pheophytinate (all in Fig.3) and pheophytinates of copper and cadmium (Fig.4). Fig.5 gives the spectra of polarization of luminescence of the solutions of pheophytinates of cobalt, nickel and zinc, as well as absorption spectra of the solutions of the same three substances. A hypothetical energy level scheme for a chlorophyll molecule is given in Fig.6. The authors conclude that in the substances studied each absorption band has its own electron transitions. The fundamental bands of absorption and emission are of dipole nature. Both the system of electron levels and probabilities of transitions between them are quite different in chlorophyll from those in the remaining substances studied. In particular essential differences occur between absorption and polarization spectra of pheophytin and chlorophyll respectively. On introduction of metallic atoms into the

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51-3-6/14

Certain Optical Properties of Chlorophyll and Metal Derivatives of Pheophytin.

pheophytin molecule its structural characteristics become similar to those of chlorophyll. This seems to indicate that the structures of molecules of metal derivatives of pheophytin and of chlorophyll are similar. Luminescence yield of chlorophyll (Figs. 7, 8, 9) and its derivatives was found to depend on viscosity of the solvent. With the increase of viscosity the luminescence yield decreases. The authors thank Professor T. N. Godnev for his interest and advice. There are 9 figures, 2 tables and 17 references, 11 of which are Slavic.

SUBMITTED: January 3, 1957.

AVAILABLE: Library of Congress

Card 3/3

GURIMOVICH, G.P.; YERMOLENKO, I.N.; SIVCHENKO, A.N.; SOLOV'YEV, K.N.

Electron spectra of chlorophyll and metal derivatives of phosphytin.
Fiz. sbor. no.3:375-381 '57. (MIRA 11:8)

1. Institut fiziki i matematiki AN Belorusskoy SSR.
(Chlorophyll--Spectra) (Phosphytin--Spectra)

YARMOLENKO, I.M. [Iarmolenka, I.M.]; PAVLYUCHENKO, M.M. [Pauliuchenka, M.M.]

Swelling of oxidized cellulose in water. Vestsi Akad. BSSR. Ser. fiz.-tekhn. nav. No.2:67-75 '58. (MIRA 11:10)
(Cellulose)

YERMOLENKO, I. N.; ZHDANKOV, R. O.

Studying the dyeing of oxidized cellulose by infrared
spectroscopy. Inzh.-fiz.shur. no.2:94-98 P. '58.
(MIRA 13:1)

1. Institut fiziki i matematiki AN BSSR, Belorussskiy gosudar-
stvennyy universitet, Minsk.
(Dyes and dyeing--Cellulose) (Spectrum, Infrared)

YERMOLENKO, I. N.

AUTHORS: Yermolenko, I. N., Zhbankov, R. G., 62-2-27/28
Ivanov, V. I., Lenshina, N. Ya., Ivanova, V. S.,

TITLE: The Investigation of Some Oxidation Reactions of Cellulose by
the Method of Infrared Spectroscopy (Issledovaniye nekotorykh
okislitel'nykh reaktsiy tsellyulozy metodom infrakrasnoy
spektroskopii)

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 2,
pp. 249-251 (USSR)

ABSTRACT: In the present paper the authors use the hitherto known methods
and investigation results in the field of adsorption spectro-
scopy for the purpose of finding out the directions of reaction
with subsequent formation of functional groups in the compli-
cated structure of the respective oxidation products of cellulose.
The modifications in the infrared spectra connected with
the formation of carboxyl- and carboxyl-groups have hitherto
been determined. The presence of carboxyl groups was judged ac-
cording to the adsorption band at $5,57\mu$ (oscillation C=O). This
method is, however, not reliable. It is well-known that the ad-
sorption band at 7μ depends exclusively on the velocity of de-

Card 1/2

The Investigation of Some Oxidation Reactions of Cellulose by 62-2-27/28
the Method of Infrared Spectroscopy

formation of the CH₂-groups. Consequently the oxidation-transformation of the carbon atom can be estimated according to the modification of the intensity of adsorption (according to the wave length). Monocarboxyl cellulose contains so-called loss-carboxyls. The band at 11μ is not connected with carboxyl groups. The authors also investigated the oxidation of C₆ with the action of N₂O₄ in the elementary member of the macromolecule of cellulose in dependence on the general accumulation of carboxyls (see figure 4). The adsorption band at 11μ characterizes the occurrence of aldehyde-groups in dialdehyde cellulose in a bound form. There are 4 figures, and 10 references, 6 of which are Slavic.

ASSOCIATION: Institute for Organic Chemistry imeni N.D. Zelinskii AN USSR
(Institut organicheskoy khimii im. N.D. Zelinskogo Akademii
nauk SSSR)

SUBMITTED: March 7, 1957

AVAILABLE:
Card 2/2 Library of Congress
1. Cellulose-Oxidation reduction reactions 2. Infrared
spectroscopy-Applications

YERMOLENKO, I.N.; PAVLYUCHENKO, M.M.; KAPUTSKIY, P.N.

Diagram of the oxidation of cellulose by nitrogen oxides.
Dokl. AN BSSR 2 no.11:461-464 D '58. (MIRA 12:8)

1. Predstavleno akademikom AN BSSR N.P. Yerpolenko.
(CELLULOSE) (NITROGEN OXIDES) (OXIDATION)

5(4), 5(3)
AUTHORS:

SOV/62-58-12-19/22

Yermolenko, I. N., Zhbankov, R. G., Lenshina, N. Ya., Ivanova,
V. S., Ivanov, V. I.

TITLE:

Spectroscopic Investigation of the Consumption of Hydroxyl
Groups of Cellulose on the Action of Nitrogen Dioxide
(Spektroskopicheskoye issledovaniye raskhoda gidroksil'nykh
grupp tsellyulozy pri deystvii na neye dvukisi azota)

PERIODICAL:

Izvestiya Akademii nauk SSSR⁶ Otdeleniye khimicheskikh nauk,
1958, Nr 12, pp 1495-1496 (USSR)

ABSTRACT:

In this brief report the authors mention the transformations of hydroxyl groups of cellulose in their oxidation by means of nitrogen vapors. Cotton cellulose was oxidized under static conditions (Ref 5). The change of the hydroxyl groups during the course of reaction was determined according to the spectroscopic method in the infrared range. The absorption spectra were taken according to the earlier described method (Ref 6) by means of the infrared spectrograph IKS-11 with an NaCl prism. It was found that the reaction takes a quasihomogeneous course. In the first stage mainly those products are accumulated which form due to the oxidation of primary hydroxyl groups and

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Spectroscopic Investigation of the Consumption of Hydroxyl Groups of Cellulose
on the Action of Nitrogen Dioxide

SOV/62-58-12-19/22

in the second stage those products that form due to the
oxidation of primary and secondary hydroxyl groups. The results
obtained agree with the other papers (Refs 1,4).
There are 2 figures and 7 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskogo
Academy of Sciences, USSR) Institut fiziki i matematiki
Akademii nauk BSSR (Institute of Physics and Mathematics,
Academy of Sciences, Belorussian SSR)

SUBMITTED: June 2, 1958

Card 2/2

AUTHORS: Yermolenko, I.N., Shlantsev, R.G. SOV-69-58-4-6/16

TITLE: Spectroscopic Study of the Sorption of Metallic Cations by Oxidized Cellulose (Spektroskopicheskoye issledovaniye sorbsii kationov metallov okislennymi tselyulozami)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 4, pp 429-435 (USSR)

ABSTRACT: Cellulose products contain variable quantities of cations which influence the viscosity, resistance, electric insulation properties, thermal stability, etc. of the material. The sorption of cations by cellulose is therefore of great importance. In the article, the interaction of oxidized cellulose with diluted salt solutions containing a mixture of cations is investigated, as well as the differences in the sorption on carboxyls located at various positions in the macromolecule chain. The sorption of cations under industrial conditions takes place usually from solutions formed at contact with details of the apparatus (Cu, Fe), from the water of the water main (Ca, Fe), etc. The content of carboxyl groups was determined by the calcium acetate method, of aldehydes by the iodometric method, and of carbonyl groups by the hydroxylamine method. The absorption spectra were taken by an infra-red recording spectrometer IKS-II. In Figure 1, the spectra of

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SOV-69-58-4-6/18

Spectroscopic Study of the Sorption of Metallic Cations by Oxidized Cellulose

a specimen of dicarboxyl cellulose (Curve 1) and of oxidized cellulose (Curve 2) treated with a 0.001 N solution of calcium acetate are represented. The sorption from this diluted solution is very active. For investigating the influence of the cation concentration sorption of uranyl cations from uranyl nitrate solutions of various concentrations by dicarboxyl cellulose was carried out. Figure 2 shows that considerable changes of the solution concentration affect only slightly the degree of sorption which indicates a high sorption energy. In the field of 7-8 μ in the cellulose spectrum, absorption lines are located at 1,360, 1,340, and 1,325 cm^{-1} corresponding to primary hydroxyls and decreasing in value during oxidation of the cellulose. In Figure 3, the absorption spectra of unoxidized cellulose are represented as well as those of monocarboxyl cellulose containing 12% COOH, and of oxidized cellulose treated with Ag^+ , Ca^{2+} , Pb^{2+} , and UO_2^{2+} . During cation sorption, a considerable increase of the absorption value in the given field of the spectrum is observed. The absorption spectrum for dialdehyde cellulose containing 12% CHO is given in Figure 4. There are no considerable changes in this field

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SOV-69-58-4-6/13

Spectroscopic Study of the Sorption of Metallic Cations by Oxidized Cellulose

of the spectrum. A comparison between the Figures 3 and 5 shows that for the sorption of lead and calcium on dicarboxyl cellulose greater differences are observed in the absorption field of the carboxylate groups ($1,400-1,350 \text{ cm}^{-1}$) than in the sorption of these cations on monocarboxyl cellulose. There are 6 diagrams and 30 references, 6 of which are Soviet, 17 English, 3 Finnish, 2 German, 1 French, and 1 Hungarian.

ASSOCIATIONS: Institut fiziki i matematiki AN BSSR (Institute of Physics and Mathematics of the Belorussian SSR Academy of Sciences)
Belorusskiy gosudarstvennyy universitet (Belorussian State University)

SUBMITTED: December 20, 1957
1. Cellulose--Absorptive properties 2. Cellulose--
Spectrographic analysis 3. Metal ions--Spectrographic
analysis

Card 3/3

AUTHORS: Yermolenko, I. N., Pavlyuchenko, M. M. 79-28-3-37/61

TITLE: The Oxidation Kinetics of Cellulose With Nitroger Dioxide
According to the Data of the Absorption Spectra of the
Products (Kinetika okisleniya tsellyulozy dvuokis'yu azota
po dannym spektrov pogloshcheniya produktov)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 722-728
(USSR)

ABSTRACT: Not regarding the many publications dealing with the oxidation of cellulose with NO_2 , the kinetics of this reaction has, to a great extent, not been investigated sufficiently and the formed hypotheses of the mechanism of the processes have not been proved. The application of new methods, in particular of the spectral methods, enabled the authors to find a great number of new and very interesting facts connected with the mechanism of the reaction. By means of the spectral investigations of the organic nitrites, their solutions, their nitrogen oxides in free and adsorbed state, of nitric acid and nitrous acid, of the oxidized cellulose,

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The Oxidation Kinetics of Cellulose With
Nitrogen Dioxide According to the Data
of the Absorption Spectra of the Products

79-28 3-37/61

previous to and after a vacuum treatment, as well as by heating and the effect of the solvents the authors showed that in the macromolecular reaction, products formed in the oxidation of cellulose with NO_2 , besides the groups containing carboxy and carbonyl groups, a cellulose nitrite is formed in considerable quantities. In order to determine its content in the oxidation products the value of the optical density at $\lambda 365 \text{ m}\mu$ was made use of; the carboxyl groups were determined according to the modification of the optical density at $\lambda 250 \text{ m}\mu$, the carbonyl groups at $\lambda 280 \text{ m}\mu$ (Refs. 5, 19). Thus the amount of cellulose nitrite found by the authors already earlier in oxidation products of cellulose with NO_2 was determined. It was

shown that with the duration of oxidation the amount of the nitrite passes through a maximum. A maximum accumulation velocity of the carboxyles corresponds to the maximum amount of nitrite in the oxidation product. The character of the reaction process depends on the temperature. A rise of temperature reduces the amount of the carboxyl groups as well as of the nitrite. This way the cellulose nitrite discovered by

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The Oxidation Kinetics of Cellulose With
Nitrogen Dioxide According to the Data of the
Absorption Spectra of the Products

79-28 3-37/61

the authors was recognized as an intermediary product in the
oxidation process of cellulose with NO₂.

There are 6 figures and 30 references, 16 of which are Soviet.

ASSOCIATION: Belorusskiy gosudarstvennyy universitet i Institut fiziki i
matematiki Akademii nauk Belorussskoy SSR (Belorussian State
University and Institute for Physics and Mathematics, AS Belo-
russian SSR)

SUBMITTED: January 14, 1956.

AVAILABLE ON REQUEST

Card 3/3

YERMALENKO, IN

Stepanov, I. I., Academy of Sciences USSR
Institute of Mathematics and
Mathematical Physics

207/30-57-1-977

Periodicals and Books, 1959, No. 10, 10-10-10 (1960)
Some investigations by YermaLENko (Belenko) in the field of
spectroscopy and photochemistry (theory Belenko's method
of spectroscopy of suspensions)

Some investigations are being carried out at the Institute
of Mathematics (Belenko) and Mathematics (theory Belenko's method
of spectroscopy of suspensions) at Belorussian University
(the Ministry of Higher Education of the Belorussian SSR), under the direction
of Prof. V. V. Kostylev, Dr. V. V. Mamonova, Dr. A. A. Talyshmanov,
and Prof. V. V. Shchegoleva. On the Faculty of Mathematics and
Mechanics, Belorussian University, Dr. V. V. Mamonova, Dr. A. A. Talyshmanov,
and Prof. V. V. Shchegoleva, General Director, Head
of the Faculty of Mathematics and Mechanics, Dr. V. V. Mamonova,
and Prof. V. V. Shchegoleva, Director, are engaged in researches in
the field of theoretical spectroscopy and photochemistry. In particular, the following is
published:

I. I. Stepanov, "The I. I. Stepanov method and the general
principle of spectroscopy of suspensions and their
characteristics,"

On the basis of experimental data A. N. Sloboda obtained
important results in the determination of positive values of
optical characteristics of the substances examined.

A. N. Sloboda, E. I. Tsvet, "Analogical calculation methods of
spectroscopy of suspensions overlapping of absorption and luminescence
processes."

A. N. Sloboda, "Analogical calculation methods of absorption
and luminescence of substances in suspensions,"

On the basis of experimental data A. N. Sloboda obtained
that the coefficient of quenching oscillations may be more
than one.

A. N. Sloboda, under the direction of A. N. Sloboda, conducted
the analysis of the results of the work of Stepanov as
well as the theory of absorption and emission spectra.

I. I. Stepanov, "I. I. Stepanov's method is successfully used
in luminescence polarization of many substances, especially, as
was the case in my experiments on improved approaches."

A. N. Sloboda, V. V. Mamonova, work in the field of luminescence
of substances examined.

A. N. Sloboda examined the phenomena of phosphorescence,
radiations of optical properties of substances, and
radiation spectra of substances, and he also obtained data on the
radiation spectra of substances and the nature of the
radiation spectra of substances.

A. N. Sloboda, under the direction of Stepanov, obtained data on the
radiation spectra of substances and the nature of the
radiation spectra of substances.

I. I. Stepanov, "I. I. Stepanov's method and its
possibilities of application,"

I. I. Stepanov, "I. I. Stepanov's method and its
possibilities of application,"

I. I. Stepanov, "I. I. Stepanov's method and its
possibilities of application,"

I. I. Stepanov, "I. I. Stepanov's method and its
possibilities of application,"

I. I. Stepanov, "I. I. Stepanov's method and its
possibilities of application,"

207/30-57-1-977

Case 1/9

Case 1/9

Case 4/9

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YERMILENKO, Igor' Nikoleyevich; PAVLYUCHENKO, M.M., red.; MARIKS, L.,
red. i zd.-va; VOLOKHANOVICH, I., tekhn.red.

[Spectroscopy in the chemistry of oxidized celluloses]
Spektroskopiia v khimii okislennykh tselliuloz. Minsk, Izd-vo
Akad. nauk BSSR, 1959. 291 p. (MIRA 13:2)

1. Chlen-korrespondent AM BSSR (for Pavlyuchenko).
(Cellulose) (Spectrochemistry)

YERMOLINCO, I.N.; GUSEV, S.S.

Methods for the measurement of the Infrared spectra of cellulose
materials. Vysokom. soed. 1 no.3:466-473 Mr '59;
(MIRA 12:10)

1:Institut fiziki i matematiki AN MSSE.
(Cellulose--Spectra)

YERMOLENKO, I.N.; GUSEV, S.S.

Quantitative determination of COOH and H₂O in cellulose
by infrared spectroscopy. Vysokom.socd. 1 no.10:1462-1468
O '59. (MIRA 13:3)

I. Institut fiziki i matematiki AM BSSR.
(Cellulose--Spectra)

YERMOLENKO, I.N.; CHURKINA, L.A.

Acting of nitrogen oxides on cellulose dissolved in phosphoric acid in
connection with the production of fire-resistant polymers. Dokl. AN BSSR 3
no.111-15 Ja '59. (MIRA 12:3)

I. Predstavlene akademikom AN BSSR N.F. Yermolenko.
(Cellulose) (Textile fibers, Synthetic)

YERMOLENKO, I.N.; ZHANKOV, R.G.

Sorption of iron by cellulose materials. Dokl. AN BSSR 3 no.5:202-204
May '59. (MTR 12:10)

1. Predstavlenie akademikom AN BSSR B.I. Stepanovym.
(Iron) (Cellulose) (Sorption)

YERMOLAYEVA, Ye.Ye.

SAPOZHNIKOV, D.I.; YERMOLAYEVA, Ye.Ye.

Varvara Aleksandrovna Brilliant-Lerman; obituary. Bot. zhur. 39 no.6:
940-943 N-D '54.
(MLRA 8:2)

1. Botanicheskiy institut im. V.L.Komarova Akademii nauk SSSR,
Leningrad.
(Brilliant-Lerman, Varvara Aleksandrovna, 1888-1954)

YERMOLAYEVA, Yekaterina

Daily and seasonal course of photosynthesis and the accumulation
of dry substance in potatoes, tomatoes and malinovka. Trudy Bot.
inst. Ser. 4 no. 11:208-224 '56.
(Photosynthesis) (Potatoes) (Tomatoes) (Tobacco) (MIRA 9:9)

Ye Ya YERMOLAYEVA

USSR/Cultivated Plants - Potatoes, Vegetables, Melons, etc.

M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15634

Author : Ye.Ya. Yermolayeva

Inst : The Botanical Institute of the Academy of Sciences USSR.

Title : The Effect of Large Phosphorous Dosage on Tomato Cold
Resistance.
(Vliyanie vysokikh dos fosforei na povysheniye kholodo-
stoykosti tomatov).

Orig Pub : Dokl. AN SSSR, 1956, 111, No 5, 1130-1133

Abstract : At the Botanical Institute of the Academy of Sciences
USSR the effect of phosphorous dosage was studied in the
Gruntovyy Gribovskiy variety at lower temperatures
with an eye toward several physiological processes in
the tomato. The experiment was set in soil cultures
according to the schema: double rate of P, double rate

Card 1/2

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YERMOLAYEV, Ya.Ya.

Effect of carbon dioxide concentration of photosynthesis
in cultivated plants. Trudy Bot.inst.Ser. 4 no.13:46-63
'59. (MIRA 13:3)
(Photosynthesis) (Potatoes) (Tomatoes)

YERMOLOVA, Ye.Ya.; FILIPOVICH, L.N.; SHILOVA, M.A.

Translocation of assimilates in Perilla at different stage of development [v.s.i.E.]. Trudy Bot. inst. Ser. 4 no. 14:73-88 '60.

(Plants, Motion of fluids in)

(MIRA 14:3)

KOZLOVA, N.A.; YERMOLYAYEVA, Ye.Ya.

Use of biologically active substances in plant protection.
Trudy Len. ob-va est. 74 no. 1:49-52 '63. (MIRA 17:9)

YERMOLAYEVA, Z.V.

EXCERPTA MEDICA Sec.4 Vol.10/3 Microbiology Mar 57

527. ERMOLYEVA Z.V., SUKHAREVA M.E., BLUMENTAL K.V. and ISKRZHITS-KAYA A.I. "The use of biomycin and streptomycin with ekmolin in experimental infection and in clinical cases in the fight against diphtheria carriers (Russian text) PE-DIATRIJA 1955, 5/6 (40-44)

Diphtheria bacilli showed in in-vitro tests their susceptibility toward biomycin and streptomycin with a lesser degree to ekmolin, and the highest susceptibility to the combination of biomycin, streptomycin and ekmolin. This would indicate a synergistic action of all 3 antibiotics. The therapeutic tests also showed the highest effect in the combination of all 3 antibiotics even when used in smaller dosage. Oral administration of biomycin with ekmolin caused in diphtheria carriers a rapid elimination of the bacilli from the throat. Anigstein - Galveston, Tex. (XX,4,6,7,17)

YERMOL'YEVA, Z.V.; VAYSBERG, G.Ye.; GIVENTAL', N.I.; LIKINA, T.N.

Ciine in association with other antibiotics in acute radiation sickness in mice. Antibiotiki 5 no.4:37-41 Jl-Ag '60. (MIR 13:9)

1. Laboratoriya novykh antibiotikov pri kafedre mikrobiologii TSentral'nogo instituta usovershenstvovaniya vrachey.
(ANTIBIOTICS) (RADIATION SICKNESS)

YERMOL'YEVA, Z. V.; FURER, N. M.; VAYSBERG, G. Ye.; RAVICH, I. V.; NIEMIROVSKAYA, B. V.

"New antibiotic preparations and other biologically active compounds of natural origin."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

Dept of Microbiology & Lab of New Antibiotics, Cent Inst for Post-Graduate Training, Moscow.

YERMOL'YEVA, Z. V.; BRAUDE, A. I.; VEDMINA, Ye. A.; FURER, N. M.; VAYSBERG, G. Ye.

"The problems of antibiotica, interferon, bacterial polysaccharides and the resistance of microorganisms."

report presented at 4th Intl Cong, Hungarian Soc of Microbiologists, Budapest,
30 Sep-3 Oct 64.

Inst of Advanced Medical Education, Moscow.

ROZHDESTVENSKAYA, V.I.; NEBYLITSYN, V.D.; BORISOVA, M.N.; YERMOLAYEVA-TOMINA, L.B.

Comparative study of various indexes of the strength of the nervous system in man. Vop. psichol. 6 no.5:41-56 S-0 '60. (MIRA 13:11)

1. Institut psichologii APM RSPFR, Moskva.
(Nervous system)

YERMOLAYEVA-TOMINA, L.B.

Individual distinctions in the concentration of attention
and the strength of the nervous system. Vop.psichol. 6
no.2:84-95 Mr-Apr '60. (MIRA 13:7)

1. Institut psichologii APN RSRF, Moscow.
(Attention) (Nervous system)

1. YERMOLOVICHENKO, YE. Z.; RABOVSKIY, M.G.; POPOV, G.M., ENG.
2. USSR (600)
4. Steel - Heat Treatment
7. Gradual annealing of a steel strip without oxidizing its surface. Prom.energ.
9 no.10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

YERMOL'CHENKO, Ye. Z.

YERMOL'CHENKO, Ye. Z. and RABOVSKIY, M. G. Combined Hardening of Steel Tape without Surface Oxidation (Stupenchataya Zakalka Stal'noy Lenty bez Okisleniya Yeye Poverkhnosti), pp. 7-8 - 1952.

The use of a furnace with an inclined heat chamber is suggested in order to eliminate air circulation and oxydation of steel surfaces before hardening in a lead bath. This suggestion won one of the fourth prizes at the Seventh All-Union Contest on Power Economizing. (Drawings).

SO: PROMYSHLENNAYA ENERGETIKA, No. 10, Oct. 1952, Moscow (1502270)

RYBAKOVA, L.M.; YERMOL'CHIK, S.Z.

Porosity development in copper under the effect of cyclic
heat treatment. Fiz. met. i metalloved. 9 no.5:733-740
Mys '60. (MIRA 14:4)

1. Institut mashinovedeniya AN SSSR.
(Copper—Metallography)
(Thermal stresses)

RYBAKOVA, L.M.; YERMOL'CHIK, S.Z.

Investigating the substructure of copper annealed at various
temperatures. Fin.met.i metalloved. 15 no.3:439-443 Mr '63.
(MIRA 16:4)
(Copper--Metallography) (Annealing of metals)

ACC NR: AT7003566

(N)

SOURCE CODE: UR/3240/66/000/001/0088/0096

AUTHORS: Kotlyar, I. V.; Yermol'chik, V. N.

ORG: Kaliningrad Technical Institute for the Fish Industry and Management
(Kalininogradskiy tekhnicheskii institut rybnoy promyshlennosti i khozyaystva)

TITLE: On intrinsic stability calculations for gas turbine installations

SOURCE: Kharkov. Politekhnicheskii institut. Energeticheskiye mashinostroyeniye, no. 1, 1966. Teplokhimika i gazodinamika (Heat transfer and gas dynamics), 69-96

TOPIC TAGS: gas turbine, gas compressor, combustion chamber, stability criterion, vibration

ABSTRACT: The intrinsic stability of a gas turbine installation which consists of three turbines, two compressors, and two combustion chambers is analysed. Without considering a regenerator, the study leads to 28 linearised equations that describe the free vibrations of the gas turbine installation. The stability criterion is defined by the quantity Y_j , given by

$$Y_j = \frac{\Delta H_j}{\Delta \omega} = - R_j \frac{d\omega}{d\mu_j},$$

where

$$R_j = \frac{1}{2\pi} \frac{d^2 P}{d\mu_j^2}.$$

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ACC NR: AT7003566

is the rotor time, I_j is the moment of inertia, and ΔM_j is the excess moment generated on the j-th shaft. Two extreme values are obtained for the stability criterion, one for each compressor shaft. These are:

- 1) $Y_{1a} = A_1$, at $R_1 \rightarrow \infty (\Delta n_1 \rightarrow 0)$
- 2) $Y_{1a} = A_1 - \frac{E_1 E_2}{A_1}$ at $R_1 \rightarrow 0 (\Delta n_1 \rightarrow 0)$.

- 3) $Y_{2a} = A_2$, at $R_2 \rightarrow \infty (\Delta n_2 \rightarrow 0)$
- 4) $Y_{2a} = A_2 - \frac{E_1 E_2}{A_2}$, at $R_2 \rightarrow 0 (\Delta n_2 \rightarrow 0)$.

A specific example is selected and the coefficients in the above 28 equations are evaluated. The results are then given in tabular form. Orig. art. has: 39 equations, 1 figure, and 1 table.

SUB CODE: 21, 20/ SUBN DATE: none/ CHIS REF: 001

Card 2/2

LEVITMAN, Kh. Ya.; YERMOLENKA, N. F.

LEVITMAN, Kh. Ya.; YERMOLENKA, N. F.

Amperometric determination of copper in galvanic vats used for nickel,
zinc, and cadmium plating. Vestsi AN BSSR, Ser. fiz.-tekhn. nav. no. 4:
133-137 '56. (MIREA 10:6)

(Copper)

(Conductometric analysis)

YERMOLENKA, N.N.

TARASENKA, V.R., kandydat gistoricheskikh nauk; ZHUMINA, L.A., kandydat tekhnicheskikh nauk; YERMOLENKA, N.N., kandydat tekhnicheskikh nauk.

"Glass manufacture in ancient Russia" by M.A. Besborodov. Reviewed by V.R. Tarasenka, L.A. Zhumina, N.N. Ermolenko). Vestsi AN BSSR. Ser. fiz.-tekhn. nauk, no. 1(161-163) '57. (MLRA 10:6)
(Glass manufacture--History) (Besborodov, M.A.)

YERMOLENKO, A.F.; NAUMOV, B.S.

Shortcomings in the organization of construction. Avtom., telem. i
sviaz' 9 no.5:17 My '65. (MIRA 18:5)

1. Nachal'nik sluzhby signalizatsii i svyazi Yugo-Zapadnoy dorogi
(for Yermolenko). 2. Nachal'nik tekhnicheskogo otdela sluzhby
signalizatsii i svyazi Zakavkazskoy dorogi (for Naumov).

YERMOLENKO, A.P.

Participation of the students of a technical school in practical projects. Avtom, telec. i svias' 4 no.11:12 N '60. (MIRA 13:11)

1. Predsedatel' Gosudarstvennoy kvalifikatsionnoy komissii tekhnika imeni N.Ostrovskogo.
(Railroads---Employees---Study and teaching)
(Kiev---Technical education)

YERMOLENKO, A.F.

Mechanized devices for repairing communication lines. Avtom.,
talem., i sviaz! 5 no.10:23-24 0 '6l. (MIRA 14:9)

1. Nachal'nik sluzhby signalizatsii i svyazi Yugo-Zapadnoy
dorogi. (Telephone lines) (Telegraph lines)

YERMOLENKO, A.F.

The workers of the Zhmerinka railroad district work like all true
Communists should. Avtom., telem.i sviaz' 6 no.4120-22 Ap '62.
(MIRA 15:4)

1. Nachal'nik sluzhby signalizatsii i svyazi Yugo-Zapadnoy
dorogi.

(Railroads--Employees) (Railroads--Signaling)

YERMOLENKO, A.F.

Efficient work of volunteer design workers. Avtom., telem. i
sviaz' 6 no.9:31-32 8 '62. (MIRA 15:9)

1. Nachal'nik sluzhby signalizatsii i svyazi Yugo-Zapadnoy dorogi.
(Railroads—Employees)

YERMOLENKO, A.I., professor

Lage results of rectocolopexy according to the author's method,
Khirurgiia 32 no.6:38-40 Je '56. (MIRA 9:10)

1. Iz gospital'noy klinik khirurgicheskoy kliniki (dir. - zasluzhennyy deyatel' nauki prof. A.V.Smirnov) LSOPI.
(COLON, surg.
recto-colopexy, method)
(RECTUM, surg.
same)

YEMOLENKO, A.I., professor; KURBANGALYEV, S.M., professor; EL'IMERG, G.A..
doctor-metitsinskikh nauk

Seventieth birthday of Aleksandr Vasil'evich Smirnov. Vest.khir.
78 no.2:154-155 P '57.
(MLRA 10:3)
(SMIRNOV, ALEXANDER VASIL'EVICH, 1886-)

YERMOLENKO, A.I., Prof., FARBERMAN, V.I., kand.med.nauk., SITKEVICH, V.Yu.

Current picture of the patients in a septic surgery department and
polyclinic. Sov.med. 22 no.11:109-113 N'58 (MIRA 11:11)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. A.V. Smirnov)
Leningradskogo sanitarno-gigiyenicheskogo instituta.
(HOSPITALS,
septic surg., department (Rus))
(OUTPATIENTS SERVICES,
surg. (Rus))

YERMOLENKO, A.I.

Late results of Ermolenko's rectocolopexy in rectal prolapse.
Trudy LSGMI 39:333-346 '58. (MIRA 12:8)

1. Kafedra gospital'noy khirurgii Leningradskogo sanitarno-gigienicheskogo meditsinskogo instituta (zav.kafedroy - z.d.n., prof.A.V.Smirnov).
(RECTUM, dis.
prolapse, rectocolopexy (Rus))

(Yerinoeskij, A.P.)

IP INFO
40(3)

67/30

80V/19-59-15-02/312

AUTHORS: Perel'man, Ye.G., Ladygina, A.A., Vermolensk, A.P.,
Markinov, A.B.; and Krasnitskij, V.V.

TITLE: High-Strength Steel for Welded Constructions¹⁶

PERIODICAL: Nyulleten' isobrately, 1959, Nr 15, p 29 (USSR)

ABSTRACT: Glass 18d, 110. № 121456 (597636/22 of 18 April
1958). A high-strength steel containing nickel,
chrome, silicon, manganese, vanadium, and tungsten.
To improve the strength of the steel, the silicon
and chrome content is increased to 1.5% and the
percentage of components is as follows: carbon -
0.16 to 0.32%, silicon - 0.80 to 1.50%, nickel -
0.80 to 1.50%, vanadium - 0.10 to 0.25%, manganese -
0.50 to 0.80%, chrome - 0.80 to 1.50%, and tungsten -
0.50 to 1.20%; the sulfur and phosphorus content -
not higher than 0.025%.

Card 1/1

40(3)
AUTOM

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001962820003-0

YERMOLENKO, A.P.; KOROLEVA, N.V.; KOROLEV, N.V.; LEONOV, Yu.V.

Quenching of hardened ferritic-austenitic chrome-nickel steel.
Metallolved. i term. obr. met. no. 12:51-55 D 65.
(MIRA 18:12)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001962820003-0"

SOV/133-59-1-20/23

AUTHORS: Yermolenko, A.P., Candidate of Technical Sciences
and Konstantinov, N.I., Engineer

TITLE: The Use of Steel 38KhRA for the Manufacture of Large
Parts (Primeneniye stali 38KhRA dlya izgotovleniya
krupnogabarnykh detalej)

PERIODICAL Stal', 1959, Nr 1, pp 85 - 87 (USSR)

ABSTRACT: Structural steel 38KhA possesses a low hardenability due
to which parts of a cross-sectional area above 150 mm,
manufactured from this steel, have lower and unstable
mechanical properties. As an increase in hardenability
can be obtained by alloying with boron, an investigation
was carried out as to the applicability of boron steel
38KhRA (GOST 4543-57) for manufacturing machine parts of
a cross-sectional area up to 200 mm. The experimental
38KhA steel was produced in a 10-ton basic electric
furnace, tapped into 2 ladles to one of which boron was
added. Final deoxidation was done in the ladle according
to two modifications: 1) aluminium (0.5 kg/t) was
placed into the ladle before tapping, then when the ladle
was 1/3 full, ferrotitanium (0.013%) and a 20% ferroboron
was added (0.0035%); the metal retained in the ladle for
8 minutes and then teemed into ingots; 2) as above,

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SOV/133-59-1-20/23

The Use of Steel 38KhRA for the Manufacture of Large Parts

but without the addition of ferrotitanium. Chemical compositions of the steels obtained, their hardenability (Figure 1) and mechanical properties (Table 1) are given. It was found that with the exception of hardenability mechanical properties of boron steels, deoxidised with and without titanium, did not differ so that in subsequent heats only deoxidation with aluminium was used. Further heats were done in a 35-ton basic open-hearth furnace. Deoxidation was effected by placing 300 kg of 45% ferrosilicon on the bottom of the ladle and when it was 1/3 full aluminium was added (0.5 kg/t) followed by ferroboron (0.0035%). Steel was retained in the ladle for 8 minutes and then teemed into 1.5-ton ingots. Ingots were rolled into billets for shafts for turbo-boring machines. The comparison of hardenability of the steel without and alloyed with boron is shown in Figure 2 and mechanical properties before and after hardening in Tables 2 and 3, respectively. On the basis of the results obtained, steel 38KhRA is recommended for the manufacture of shafts of turbo-boring machines as well as a replacement

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The Use of Steel 38KhRA for the Manufacture of Large Parts

for steels 38KhA and 40Kh for manufacturing parts of a cross-sectional area of up to 200 mm, when due to the low hardenability of these steels their impact strength is below that required.

There are 2 figures and 3 tables.

Card3/3

YERMOLENKO, Mariya Nikitichna; TORKAYLO, I., red.

[Prospects for the specialization and distribution of cattle growing] Perspektivy spetsializatsii i rammeshcheniya skotovodstva. Minsk, Urozhai, 1965. 79 p.
(MIRA 19:1)

YERGOLIKO, A.S., aspirant

Morphology of the spinal ganglia in hypertension. Mirav. Turk.
(MIRA 13:5)
3 no.6:20-24 N-D '59.

1. Is kafedry patologicheskoy anatomi (zav. - prof. O.Ya. Reshabek)
Turkmenstogo gosudarstvennogo meditsinskogo institut im. I.V.
Stalina.
(HYPERTENSION) (NERVES, SPINAL)

YERMOLENKO, A.S.; aspirant

Morphological condition of the nerve elements in various parts of
the skin of persons dying from hypertension. Zdrav. Turk. 4
no. 3:20-26 My-Je '60. (MIRA 13:10)

1. Is kafedry patanatomii (sav. - prof. O.Ia. Reshabek)
Turkmenstakogo gosudarstvennogo meditsinskogo instituta im.
I.V. Stalina.
(SKIN—INNervation) (HYPERTENSION)

REZHABEK, O.Ya., prof.; YERMOLENKO, A.S., aspirant

Morphological changes in the radix posterior nervorum spinalium in persons dying from hypertension. Zdrav. Turk. 4 no.4:28-32 Jl-Ag '60. (MIRA 13:9)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. O.Ya.Rezhabek) Turkmenstogo gosudarstvennogo meditsinskogo instituta im. I.V.Stalina. (NERVES, SPINAL) (HIPERTENSION)

YERMOLENKO, A. S. Cand Med Sci -- "Morphological state of the nervous elements
of various parts of the skin of ~~people who died~~ ^{persons having} hypertension." Ashkhabad,
1961 (Stalinabad State Med Inst im Abuali Ibn-Sino). (Kl., 4-61, 208)

-342-

S/048/61/025/012/011/022
B117/B104

AUTHORS: Yermolenko, A. S., and Shur, Ya. S.

TITLE: The nature of the coercive force in alloys of the "Alnico" type

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25,
no. 12, 1961, 1479 - 1483

TEXT: Alloys of the system Fe-Ni-Al differ from other age-hardening alloys used for permanent magnets so far as their maximum coercive force is not due to quenching the material from the temperature of the single-phase state and subsequent tempering (treatment of type I) but rather to cooling at a certain critical rate and tempering (treatment of type II). The difference between the two types of treatment was studied in the present paper, basing on studies of magnetic properties of monocrystals of an alloy containing 24% Co, 14% Ni, 8% Al, 3% Cu, 51% Fe. The disk-shaped specimens were 0.35 mm thick and 6 mm in diameter. Their surfaces coincided with the crystal plane (100) with an error of up to 2°. The heat treatment was made in an argon atmosphere. A rotary magnetometer was

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S/048/61/025/012/011/022
B117/B104

The nature of the coercive...

used to measure the magnetic characteristics. The coercive force was measured at room temperature by the usual ballistic method. The variation in coercive force and torque amplitudes was measured at 625°C in a field of 16,600 oe, according to the tempering time. The coercive force of specimen no. 2 (treatment of type II) rapidly reaches its maximum value of 430 oe and remains practically constant beyond this value. After tempering specimen no. 1 (treatment of type I) for 60 hours, its coercive force reaches a value of 90 oe at 625°C which can, however, be increased by additional tempering at 700°C and subsequent annealing at 625°C. After a 54-hour tempering, both specimens exhibit identical torque amplitudes which even increase in no. 1 if the process is continued. In specimen no. 1, the torque amplitudes are negative in the entire field and slightly dependent on the field. In no. 2, the amplitudes are positive in fields of less than 8000 oe and negative in stronger fields. After a 60-hour tempering at 625°C the amplitudes are positive in the entire field. In the present case, the shape of the torque characteristics was related to the presence of two types of anisotropy in the specimen: (1) crystallographic magnetic anisotropy and (2) an anisotropy related to the form of

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The nature of the coercive ...

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B117/B104

precipitates (anisotropy of the stray fields). During the decay the last-mentioned type plays an ever more important role: the characteristics are shifted from the negative to the positive range. After a 60-hour tempering at 625°C the torque characteristics for both specimens have practically identical amplitudes over a wide range of fields, whereas the coercive forces differ from each other by a factor of nearly 5. Investigation of the saturation magnetization I_s and of the coercive force in the temperature range, where these characteristics change reversibly, has shown that both specimens agree as to I_s and temperature dependence. This indicates that independent of the type of treatment, the phases resulting from decay are of identical or similar composition. Great differences in the relative amounts of the phases are also unlikely. After tempering the specimens for 60 hours, rotational hysteresis as a function of the strength of the external field exhibited the same character as ordinary hysteresis in an alternating magnetic field. The large differences in the coercive force of the specimens, produced by the two types of treatment, are attributed to a definite distribution of grains

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The nature of the coercive...

according to their coercive force. The special advantage of the treatment of type II is that a structure with almost equal grain sizes can be obtained. The grain size corresponds to the coercive force. The authors thank L. V. Smirnov for the growing of monocrystals, and L. M. Magat for having determined their orientation. There are 5 figures and 9 references: 4 Soviet and 5 non-Soviet. The four most recent references to English-language publications read as follows: Wohlfarth, E. P., Philos. Mag., Suppl., 8, 87 (1959); Clegg, A. G., McCaig, M., Proc. Phys. Soc. London, B, 70, 817 (1957); Nesbitt E. A., Williams H. J., Bozorth R. M., J. Appl. Phys., 25, 1014 (1954); Fisher J. S., Hollomon J. H., Turnbull D., J. Appl. Phys., 19, 775, (1948). ✓

ASSOCIATION: Institut fiziki metallov Akademii nauk SSSR (Institute of Physics of Metals of the Academy of Sciences USSR)

Card 4/4

18.1142

41516
S/126/62/014/003/003/022
E021/E435

AUTHORS: Yermolenko, A.S., Shur, Ya.S.

TITLE: The mechanism of thermomagnetic treatments of high-coercive alloys of the alni and alnico types

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.3, 1962,
348-357

TEXT: The aim of the work was to investigate the influence of the initial structural state, temperature, time and other conditions during isothermal treatment in a magnetic field on the formation of uniaxial magnetic anisotropy of the alloys. Single crystals of alnico (14% Ni, 24% Co, 8% Al; 3% Cu, 51% Fe) and alni (26% Ni, 14% Al, 3% Cu, 57% Fe), prepared from a melt produced in a high frequency vacuum furnace, were used. After prolonged heating near the melting point, the bars contained coarse crystals. Single crystalline discs with diameter 5 to 6 mm and 0.4 to 0.5 mm thick were cut from the bars in the (100) and (110) planes. After various heat treatments (in an argon atmosphere) both with and without a magnetic field, values of the mechanical torque and the coercive force along and perpendicular to the

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E021/E435

The mechanism of thermomagnetic ...

direction of the magnetic field were determined at room temperature. The mechanical torque was measured in fields of 4700, 9200, 13700 and 19400 oersteds. Curves were obtained characterizing the total anisotropy of the crystals. Results: the uniaxial anisotropy during thermomagnetic treatment of the alloys forms independently of the initial structural state at all temperatures below the Curie point of the strongly magnetic phase provided diffusion occurs during the process. During their process of growth, the shape anisotropy of the precipitates, forming during decomposition of Fe-Ni-Al alloys, increases; the cause being that this leads to a decrease in the magnetostatic energy and additionally it may also be due to the anisotropy of the energy of the surface tension between two phases. Thermomagnetic treatment of the alloys results in the orientation of the precipitates with their long axes along the direction of the magnetic field. This orientation may occur both during nucleus-formation of the precipitate and at later stages of decomposition of the solid solution. In the latter case reorganization of the structure of the alloys occurs both by changes in form of the

Card 2/3

S/126/62/014/003/003/022
E021/E435

The mechanism of thermomagnetic ...

precipitate and by growth of some particles at the expense of others. There are 8 figures and 1 table.

ASSOCIATION: Institut fiziki metallov AN SSSR
(Institute of Physics of Metals AS USSR)

SUBMITTED: June 11, 1962

Card 3/3

S/126/62/014/003/016/022
E073/E420

AUTHORS: Shur, Ya.S., Magat, L.M., Yermolenko, A.S.

TITLE: On the relation between the crystal structure and the magnetic properties of alnico

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.3, 1962,
458-461

TEXT: So far, the nature of the structural transformations which lead to a reversible change in the magnetic properties of alnico has not been resolved and the authors considered it of interest to try to observe these transformations by accurate measurement of the lattice parameters and a determination of the average distance between defects from the positions of the satellites on the X-ray spectra. Specimens in the form of discs and plates cut from single crystals in the plane (100) of the alloy (24% Co, 14% Ni, 8% Al, 3% Cu, remainder Fe) were used in studying the temperature dependence of the coercive force and the saturation magnetization by means of a rotary magnetometer. It was found that these properties do not depend on the preceding heat treatment but are determined solely by the last tempering temperature, which

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S/126/62/014/003/016/022
E073/E420

On the relation between ...

indicates that the magnetic properties of coherent defects and of the matrix change reversibly with changing temperature. Regardless of the previous heat treatment, tempering at 560°C led to the same value of the lattice parameters. Further heating to higher temperatures brings about an increase in the lattice parameter which approaches the value pertaining to a specimen quenched from 1250°C; tempering at 560 to 750°C leads relatively quickly to a certain state of the solid solution for each temperature regardless of the previous heat treatment. It is concluded that when cooling from 1250°C at a critical rate defects form which are coherently interconnected with the matrix and are distributed more or less periodically; the lattice parameter of the solid solution decreases somewhat which probably occurs owing to defects in the Y₂ phase. Due to these structural changes, the coercive force increases. Tempering at 560°C leads to a further change in the state of the solid solution and to a redistribution of the components between the matrix and the coherent defects. The obtained data indicate that the reversible changes in the saturation magnetization and the

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8/126/62/014/003/016/022
E073/E420

On the relation between ...

coercive force of alnico are due to reversible changes in the state of the matrix and coherent defects corresponding to the equilibrium phases β_2 and β ; the irreversible changes in the coercive force are due to irreversible growth of coherent defects. There are 1 figure and 1 table.

ASSOCIATION: Institut fiziki metallov AN SSSR
(Institute of Physics of Metals AS USSR)

SUBMITTED: July 11, 1962

Card 3/3

ACCESSION NR: API013090

S/0126/64/017/001/0031/0039

AUTHORS: Yermolenko, A. S.; Shur, Ya. S.

TITLE: Magnetic structural analysis of high coercivity Alnico alloy

SOURCE: Fizika metallov i metalloved., v. 17, no. 1, 1964, 31-39

TOPIC TAGS: Alnico alloy, magnetic structure, coercivity, saturation magnetization, crystallographic anisotropy, uniaxial anisotropy, tempering, annealing, quenching, rotary magnetometer

ABSTRACT: The temperature dependence of saturation magnetization, coercive force, and constants of crystallographic and induced anisotropy of Alnico alloy was investigated. The specimen was obtained by melting the alloy (24% Co, 11% Ni, 8% Al, 3% Cu, and the rest Fe) in a high-frequency furnace in vacuum. The saturation magnetization was investigated by Sucksmith's method (W. Sucksmith. Proc. Roy. Soc. 1939, A170, 551). The specimens were prepared in the form of parallelepipeds of dimensions 5 x 0.7 x 0.7 mm. The thermal treatment of the specimen was performed in an atmosphere of argon or under vacuum in a specially designed apparatus which enabled the quenching of the specimen in water, then chilling it at a desired rate. The relative error in the measurement of the saturation magnetization did not

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ACCESSION NR: APL013090

exceed 1%. The temperature dependence of the constants of anisotropy and the coercive force was studied with the aid of a rotary magnetometer. For this experiment the specimen was prepared in the form of a disk 6 mm in diameter and 0.5 mm thick. The constant of anisotropy was obtained by a harmonic analysis of the torque curves. Ballistic methods were used for measuring small values of the coercive force and for studying its angular dependence. The effect of heating the specimen up to 600°C and then cooling it was to increase the constant of anisotropy at room temperature. It was found that at high coercive states (final tempering at 560°C) the alloy showed two phases sharply distinguished by their saturation magnetization, I_{s1} - about 1600 gauss and I_{s2} - about 100 gauss. The constant of uniaxial anisotropy could be computed from the formula $K_u = -(I_u - I_{s1})(N_u - N_s)/V_1$, where N_u and N_s are magnetization factors and V_1 , V_2 are relative phase volumes. The values computed from this and the experimental values agree. The nature of structural change and the mechanism of formation of highly coercive states are discussed. Orig. art. has: 7 figures and 3 formulas.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Physics of Metals, AN SSSR)

Card 2/3

ACCESSION NR: APL413090

SUBMITTED: 21May63

SUB CODE: MM, 28

NO REF Sov: 003

ECL: 00

OTHER: ONS

Card 3/3

REF ID: A6629130
EFP(a)/EFP(t)/EPI IJP(c) JD/HW

SOURCE CODE: UR/0048/66/030/006/1046/1049

RELEASER: Yermolenko, A.S.

ORG: Institute of Metal Physics, Academy of Sciences, SSSR (Institut fiziki metallov Akademii nauk SSSR)

TITLE: Contribution to the theory of magnetic annealing of high-coercivity alloys of the Ticonal type [Report, All-Union Conference on the Physics of Ferro- und Anti-ferromagnetism held 2-7 July 1965 in Sverdlovsk]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 1046-1049

TOPIC TAGS: ferromagnetic material, iron base alloy, aluminum containing alloy, nickel containing alloy, cobalt containing alloy, titanium containing alloy, annealing, magnetic field, magnetic anisotropy

ABSTRACT: The author and collaborators (Fiz. metallovedeniye, 13, 540 (1964) have previously concluded that, contrary to the early opinion of L. Neel (Compt. rend., 223, 100 (1947)), it is not only the magnetostatic energy during the magnetic anneal that determines the orientation of the anisotropic hard magnetic inclusions in high-coercivity alloys of the Alnico and Ticonal type, but that elastic energy also contributes to the shape anisotropy and the orientation of the inclusions. The effect of elasticity should be much greater in Ticonal than in Alnico, owing to the greater difference in Ticonal between the lattice parameters of the two phases. To explore

Card 1/2

L 08763-67

ACC NR: A96029130

In this conclusion the author has investigated the effects of different heat treatments in a magnetic field on the cubic and uniaxial anisotropies and the retentivity of Ticonal single crystals (34Co-14Ni-7Al-4Cu-5Ti-0.2S-35.8Fe) and has compared the results with the corresponding data on Alnico. Specimens quenched in the absence of a magnetic field had a small positive cubic anisotropy. When the specimens were annealed in a magnetic field parallel to a [101] axis they showed not only uniaxial anisotropy, but also a large negative cubic anisotropy. When the annealing field was inclined as much as 20° to the nearest [101] axis, the easy magnetization axis of the specimen was in the [010] direction, and was not inclined toward the direction of the annealing field, as in the case of Alnico. When the annealing field was applied in the direction of a diagonal axis ([011]) the specimen showed no uniaxial anisotropy, but had a large (negative) cubic anisotropy. It is concluded that in Ticonal, the effect of elasticity is predominant in determining the shape anisotropy and orientation of the inclusions. There is a footnote acknowledging that the crystals were grown under the direction of L.V. Smirnov. Orig. art. has: 2 tables.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 001 OTH REF: 008

Card 2/2 bc

YERMOLENKO, A.S.; MELKISHEVA, E.N.; SHUR, Ya.S.

Dependence of the effect of thermomagnetic treatment on the orientation of the magnetic field in single crystals of the alnico-type alloys. Fiz. met. i metalloved. 18 no.4:540-552
O '64. (MIR 18:4)

1. Institut fiziki metallov AN SSSR.

BELOUSOV, A.D., doktor tekhn.nauk, prof.; YERMOLENKO, A.V., inzh.

Study of the thermal resistances of multilayer elements.
Trudy NIISF no.1:18-21 '62. (MIRA 15:11)
(Heat--Transmission)

GREKOV, I.A., gornyy inzh.; ANTIPOV, V.A., gornyy inzh.; YERMOLENKO, A.
Ye., gornyy inzh.

Reorganization of mining operations in the mines representing
capital assets in an important potentiality for the improvement
of technical and economic indices. Ugol' 36 no.8:30-33 Ag '61,
(MIRA 14:9)

1. Trest Shakterskantratsit kombinata Stalimugol' (Donbass).
(Coal mines and mining)

ANTIFOV, V.A., inzh.; YERMOLENKO, A.Ye., inzh.; POGREBNOY, V.M., inzh.

Fire extinction at the Donets Basin mine "Anna." Bezop.truda v
prom. 6 no.6:7-8 Je '62. (MIRA 15:11)

1. Shakhterskiy trest ugol'nykh predpriyatiy kombinata Rostovugol'
Ministerstva ugol'noy promyshlennosti SSSR.
(Donets Basin—Mine fires)

IVANOV, S.T.; YERMOLENKO, E.A., elektromekhanik

Converter instead of a buzzer. Avtom., telem. i sviaz' 9
no.11:33-34 N '65. (MIRA 18:12)

1. Starshiy elektromekhanik Kotel'nikovskoy distantsii
Privolzhskoy dorogi (for Ivanov).

YERMILENKO, G.N., economist

Analyzing the factors of overhead cost reduction and the reduction
of the cost of glass. Stek. i ker. 22 no.6:35-37 Je '65.
(MIRA 18:6)

1. Institut ekonomiki i organizatsii promyshlennogo proizvodstva
Sibirskogo otdeleniya AN SSSR.

YEEMOLENKO, G.N., inzh.

Pay more attention to questions of economic analysis. Stek.
i ker. 20 no.6:33-35 Je '63. (MIRA 16:6)

1. Institut ekonomiki i organizatsii promyshlennogo preiz-
vedstva Sibirskego otdeleniya AN SSSR.
(Glass manufacture—Accounting)

Yermolenko, I.
YERMOLENKO, I., inzh.

Standard plans for prefabricated one- and two-story apartment houses.
Gor. i sel'. stroi. no.11:11-12 N '57. (MIRA 11:1)
(Architecture--Designs and plans)
. (Apartment houses)

YERMOLIKO, I.

Hand-operated pneumatic lubricant grease pump. Avt. transp. 37
no. 10:54 0 '59.
(MIRA 13:2)

1. Glavnnyy mekhanik Krasnodarskogo avtotresta,
(Automobiles--Lubrication)

YERMOLENKO, I., inzh.; KOTSYUBA, M., inzh.

Modernization of the M-2407 machine tool for boring cylinders. Avt.transp.
4 no.8:49-50 Ag '62. (MIRA 16:4)
(Drilling and boring machinery—Technological innovations)

YERMOLENKO, I.; MAKAROV, G., inzh.-konstruktor

Operating stands for tire dismounting. Avt.transp. 40 no.2:20-22
(MIRA 15:2)
F "62.

1. Krasnodarskoye upravleniye avtotransporta. 2. Glavnnyy
mekhanik Krasnodarskogo upravleniya avtotransporta (for Yermolenko).
(Motor vehicles--Tires)

YERMOLENKO, I., inzh.; KOTSYUBA, M., inzh.

Mechanized lubrication in automotive transportation units.
Avt. transp. 41 no. 9:17-22 S '63. (MIRA 16:10)

1. Krasnodarskoye avtoupravleniye.

YERMOLENKO, I. N.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
General and Physical Chemistry

② Chem
New methods of determination of swelling of nitrocellulose
I. N. Yermolenko and A. I. Mekhlis. Chilled J. (U.S.S.R.)
14, 421-2 (1952) (Engl. translation).—See C.A. 47, 14671.

H. L. H.

3

USSR

Equation for the kinetics of swelling. M. V. Tsvetkov and L. N. Sosulin. Zhur. Tekhn. Kibernetika, No. 1, p. 37, 1958. An equation is derived for the kinetics of swelling of rubber. In relation to the movement, the rubber is considered as an osmotic cell with a semipermeable membrane formed by the interphase. The osmotic pressure caused by the kinetic energy of the free segments is counteracted by the strains of the elastic and the rate of diffusion of water across the boundary. In proportionality to the difference between these forces and the surface of the sample, the equation is derived for isotropic swelling: $b = (1/\lambda) \log(1 + i)$, where $i = v/m$ is the ratio of the wt. of absorbed liquid v to the wt. of the sample m . On coordinate axes $(v/v_0 - i)$ vs. λ there obtained straight lines passing through the origin. This is confirmed by swelling rubber in a 10% solution of n -dinitrobenzene. Tables which facilitate the calculation are given. It is shown that

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CIA-RDP86-00513R001962820003-0

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001962820003-0"

YERMOLENKO, I. N.; MAZEL', M. I.; ERMOLENKO, N. P.

Vulcanization

Role of a polar component of mixed media in the swelling of vulcanizates. Dokl. AN SSSR.
89, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. UNCLASSIFIED.

YERMOLENKO, I. N.

YERMOLENKO, I. N. --"Spectral Chemical Investigation of Oxidation of Cellulose."
*(Dissertations for Degrees in Science and Engineering Deferred at USSR Higher
Educational Institutions) Belorussian State University V. I. Lenin, Minsk, 1955

SO: Knjzhnaya Letopis', No. 24, 18 Jun 55

* For Degree of Candidate in Chemical Sciences

PAVLYUCHENKO, M.M.; YERMOLENKO, I.N.

Kinetics of the oxidation of cellulose by nitrogen dioxide.
Uch.zap.BGU no.24:138-148 '55. (MIRA 10:1)
(Cellulose) (Nitrogen dioxide)

YERMOLENKO, I. N.

USSR/Chemistry of High Molecular Substances.

F

Abs Jour : Referat Zhurnal Khimiya, No 6, 1957, 19419.

Author : R.G. Zhabkov, I.N. Yermolenko.

Inst : Academy of Sciences of White-Russian SSR.

Title : Infrared Spectra of Cellulose Materials in Shape of
Transparent Films Produced From Filaments Under High
Pressure.

Orig Pub : Izv. AN BSSR. Ser. Fiz.-Tekhn. N., 1956, No 1, 15-24.

Abstract : The authors record the imperfections of methods of
the study of infrared spectra of cellulose materials,
which methods are based on the application of im-
mersion liquids and other substances, permitting to
obtain transparent compounds, as well as the imper-
fections of the study of cellulose in its reclaines
form. The authors developed a method of preparing
films of fibrous cellulose compounds by their com-
pression under the pressure of up to 40,000 kg/cm.
The study of spectra of such films showed that their

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-10-

YEMOLENKO, I.N.; PAVLYUCHENKO, M.M.

Oxidation of cellulose. Uch.zap. BGU no.29:36-59 '56.

(MIRA 11:11)

(Cellulose) (Oxidation)

PAVLYUCHENKO, M.M.; YERMOLENKO, I.N.

Spectrum analysis of products formed during alkaline destruction
of oxidized cellulose. Uch.sop. BOU no.29:60-71 '56.
(Cellulose--Spectra) (MIRA 11:11)

YEMCLENKO, I.N.; PAVLYUCHENKO, N.N.

Acid hydrolysis of oxidized cellulose. Uch.zap. BGU no.29:
72-86 '56. (Cellulose) (Hydrolysis) (MIRA 11:11)

YURMOLENKO, I.N.

PRIKHOT'KO, A.F.

24(7) p.3 PHASE I BOOK EXPLOITATION Sov/1365
L'vov, Universitet

MATERIALY X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1:
 Molekul'arnaya spektroskopiya (Papers of the 10th All-Union
 Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy)
 [L'vov] Izd-vo L'vovskogo un-ta, 1977. 499 p. 8,000 copies
 printed. (Series: Itsi: Pis'mennyj skrynyj, vyp. 3/4)

Additional Sponsoring Agency: Akademija nauk ZSSR. Naukovaia po
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 Fabrikant, V.A., Doctor of Physical and Mathematical Sciences,
 Kurnitskiy, V.G., Candidate of Technical Sciences, Rayadciy, S.M.,
 Candidate of Physical and Mathematical Sciences, Klimavskiy, L.S.,
 Candidate of Physical and Mathematical Sciences, Mil'janetskiy, V.S.,
 Candidate of Physical and Mathematical Sciences, and Glazermann,
 A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Yeliseyev, Yu. A., L.A. Ignat', and A.N. Shabodash.
 Vacuum Container for the IR-I Infrared Spectro-
 meter

371

Gochikovskiy, V.P. Complex Structure and Nature
 of the Absorption Spectra and Fluorescence of
 Magnesium Phthalocyanine and Chlorophyll

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Svirnovich, O.P., J.M. Vermaleskiy, A.N. Sovetnikov,
 and E.N. Salov'yev. Electron Spectra of Chlorophyll
 and Phaeophytin and Metal-derivatives

373

Morinov, A.S. Effect of Spacing of Substituents
 on the Absorption Spectra and Fluorescence of
 Mono-derivatives of Anthracene

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Pishchal'nikov, A.I., N.Y. Malikhina, and O.P. Nechkin.
 Absorption Spectra in the Ultraviolet Range and
 the Molecular Structure of Triazine Derivatives

375

Card 29/30

Yermolenko, I. N.

51-3-6/14

AUTHORS: Gurinovich, G. P., Yermolenko, I. N., Sevchenko, A. N.
and Solov'yev, K. N.

TITLE: Certain Optical Properties of Chlorophyll and Metal
Derivatives of Pheophytin. (Nekotoryye opticheskiye
svoystva khlorofilla i metalloproizvodnykh feofitina.)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.III, Nr.3, pp.237-245.
(USSR)

ABSTRACT: Absorption and polarized luminescence spectra of
chlorophyll, chlorophyllide, pheophytin and metal
derivatives of pheophytin were studied. Chlorophyll
was obtained from leaves of nettle. Chlorophyllide was
produced by fermentation of Heracleum leaves. Pheophytin
was prepared by a method described earlier (Refs.4, 5).
Metal derivatives of pheophytin were produced by adding to
an alcohol solution of pheophytin dry salts of metals
(mainly acetates). These solutions were kept at room
temperature for 20 hours and then heated at 50°C for
2 hours. Spectra of polarization of luminescence of the
solutions of chlorophyll, chlorophyllide, pheophytin,
and absorption spectra of the same three substances are

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51-3-6/14

Certain Optical Properties of Chlorophyll and Metal Derivatives of Pheophytin.

given in Fig.2. Figs.3 and 4 show absorption spectra of the solutions of pheophytin, silver pheophytinate, zinc pheophytinate (all in Fig.3) and pheophytinates of copper and cadmium (Fig.4). Fig.5 gives the spectra of polarization of luminescence of the solutions of pheophytinates of cobalt, nickel and zinc, as well as absorption spectra of the solutions of the same three substances. A hypothetical energy level scheme for a chlorophyll molecule is given in Fig.6. The authors conclude that in the substances studied each absorption band has its own electron transitions. The fundamental bands of absorption and emission are of dipole nature. Both the system of electron levels and probabilities of transitions between them are quite different in chlorophyll from those in the remaining substances studied. In particular essential differences occur between absorption and polarization spectra of pheophytin and chlorophyll respectively. On introduction of metallic atoms into the

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Certain Optical Properties of Chlorophyll and Metal Derivatives of Pheophytin.

pheophytin molecule its structural characteristics become similar to those of chlorophyll. This seems to indicate that the structures of molecules of metal derivatives of pheophytin and of chlorophyll are similar. Luminescence yield of chlorophyll (Figs. 7, 8, 9) and its derivatives was found to depend on viscosity of the solvent. With the increase of viscosity the luminescence yield decreases. The authors thank Professor T. N. Godnev for his interest and advice. There are 9 figures, 2 tables and 17 references, 11 of which are Slavic.

SUBMITTED: January 3, 1957.

AVAILABLE: Library of Congress

Card 3/3

GURIMOVICH, G.P.; YERMOLENKO, I.N.; SIVCHENKO, A.N.; SOLOV'YEV, K.N.

Electron spectra of chlorophyll and metal derivatives of phosphytin.
Miz. sbor. no.3:375-381 '57. (MIRA 11:8)

1. Institut fiziki i matematiki AN Belorusskoy SSR.
(Chlorophyll--Spectra) (Phosphytin--Spectra)

YARMOLENKO, I.M. [Iarmolenka, I.M.]; PAVLYUCHENKO, M.M. [Pauliuchenka, M.M.]

Swelling of oxidized cellulose in water. Vestsi Akad. BSSR. Ser. fiz.-tekhn. nav. No.2:67-75 '58. (MIRA 11:10)
(Cellulose)

YERMOLENKO, I.I.; ZHDANKOV, R.O.

Studying the dyeing of oxidized cellulose by infrared
spectroscopy. Inzh.-fiz.shur. no.2:94-98 P. '58.
(MIRA 13:1)

1. Institut fiziki i matematiki AN BSSR, Belorussskiy gosudar-
stvennyy universitet, Minsk.
(Dyes and dyeing--Cellulose) (Spectrum, Infrared)

YERMOLENKO, I. N.

AUTHORS: Yermolenko, I. N., Zhbankov, R. G., 62-2-27/28
Ivanov, V. I., Lenshina, N. Ya., Ivanova, V. S.,

TITLE: The Investigation of Some Oxidation Reactions of Cellulose by
the Method of Infrared Spectroscopy (Issledovaniye nekotorykh
okislitel'nykh reaktsiy tsellyulozy metodom infrakrasnoy
spektroskopii)

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 2,
pp. 249-251 (USSR)

ABSTRACT: In the present paper the authors use the hitherto known methods
and investigation results in the field of adsorption spectro-
scopy for the purpose of finding out the directions of reaction
with subsequent formation of functional groups in the compli-
cated structure of the respective oxidation products of cellulose.
The modifications in the infrared spectra connected with
the formation of carboxyl- and carboxyl-groups have hitherto
been determined. The presence of carboxyl groups was judged ac-
cording to the adsorption band at $5,57\mu$ (oscillation C=O). This
method is, however, not reliable. It is well-known that the ad-
sorption band at 7μ depends exclusively on the velocity of de-

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The Investigation of Some Oxidation Reactions of Cellulose by 62-2-27/28
the Method of Infrared Spectroscopy

formation of the CH₂-groups. Consequently the oxidation-transformation of the carbon atom can be estimated according to the modification of the intensity of adsorption (according to the wave length). Monocarboxyl cellulose contains so-called loss-carboxyls. The band at 11μ is not connected with carboxyl groups. The authors also investigated the oxidation of C₆ with the action of N₂O₄ in the elementary member of the macromolecule of cellulose in dependence on the general accumulation of carboxyls (see figure 4). The adsorption band at 11μ characterizes the occurrence of aldehyde-groups in dialdehyde cellulose in a bound form. There are 4 figures, and 10 references, 6 of which are Slavic.

ASSOCIATION: Institute for Organic Chemistry imeni N.D. Zelinskii AN USSR
(Institut organicheskoy khimii im. N.D. Zelinskogo Akademii
nauk SSSR)

SUBMITTED: March 7, 1957

AVAILABLE:
Card 2/2 Library of Congress
1. Cellulose-Oxidation reduction reactions 2. Infrared
spectroscopy-Applications

YERMOLENKO, I.N.; PAVLYUCHENKO, M.M.; KAPUTSKIY, P.N.

Diagram of the oxidation of cellulose by nitrogen oxides.
Dokl. AN BSSR 2 no.11:461-464 D '58. (MIRA 12:8)

1. Predstavleno akademikom AN BSSR N.P. Yerpolenko.
(CELLULOSE) (NITROGEN OXIDES) (OXIDATION)

5(4), 5(3)
AUTHORS:

SOV/62-58-12-19/22

Termolenco, I. N., Zhbankov, R. G., Lenshina, N. Ya., Ivanova,
V. S., Ivanov, V. I.

TITLE:

Spectroscopic Investigation of the Consumption of Hydroxyl
Groups of Cellulose on the Action of Nitrogen Dioxide
(Spektroskopicheskoye issledovaniye raskhoda gidroksil'nykh
grupp tsellyulozy pri deystvii na neye dvukisi azota)

PERIODICAL:

Izvestiya Akademii nauk SSSR⁶ Otdeleniye khimicheskikh nauk,
1958, Nr 12, pp 1495-1496 (USSR)

ABSTRACT:

In this brief report the authors mention the transformations of hydroxyl groups of cellulose in their oxidation by means of nitrogen vapors. Cotton cellulose was oxidized under static conditions (Ref 5). The change of the hydroxyl groups during the course of reaction was determined according to the spectroscopic method in the infrared range. The absorption spectra were taken according to the earlier described method (Ref 6) by means of the infrared spectrograph IKS-11 with an NaCl prism. It was found that the reaction takes a quasihomogeneous course. In the first stage mainly those products are accumulated which form due to the oxidation of primary hydroxyl groups and

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Spectroscopic Investigation of the Consumption of Hydroxyl Groups of Cellulose
on the Action of Nitrogen Dioxide

SOV/62-58-12-19/22

in the second stage those products that form due to the
oxidation of primary and secondary hydroxyl groups. The results
obtained agree with the other papers (Refs 1,4).
There are 2 figures and 7 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskogo
Academy of Sciences, USSR) Institut fiziki i matematiki
Akademii nauk BSSR (Institute of Physics and Mathematics,
Academy of Sciences, Belorussian SSR)

SUBMITTED: June 2, 1958

Card 2/2

AUTHORS: Yermolenko, I.N., Shlantsev, R.G. SOV-69-58-4-6/16

TITLE: Spectroscopic Study of the Sorption of Metallic Cations by Oxidized Cellulose (Spektroskopicheskoye issledovaniye sorbsii kationov metallov okislennymi tselyulozami)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 4, pp 429-435 (USSR)

ABSTRACT: Cellulose products contain variable quantities of cations which influence the viscosity, resistance, electric insulation properties, thermal stability, etc. of the material. The sorption of cations by cellulose is therefore of great importance. In the article, the interaction of oxidized cellulose with diluted salt solutions containing a mixture of cations is investigated, as well as the differences in the sorption on carboxyls located at various positions in the macromolecule chain. The sorption of cations under industrial conditions takes place usually from solutions formed at contact with details of the apparatus (Cu, Fe), from the water of the water main (Ca, Fe), etc. The content of carboxyl groups was determined by the calcium acetate method, of aldehydes by the iodometric method, and of carbonyl groups by the hydroxylamine method. The absorption spectra were taken by an infra-red recording spectrometer IKS-II. In Figure 1, the spectra of

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SOV-69-58-4-6/18

Spectroscopic Study of the Sorption of Metallic Cations by Oxidized Cellulose

a specimen of dicarboxyl cellulose (Curve 1) and of oxidized cellulose (Curve 2) treated with a 0.001 N solution of calcium acetate are represented. The sorption from this diluted solution is very active. For investigating the influence of the cation concentration sorption of uranyl cations from uranyl nitrate solutions of various concentrations by dicarboxyl cellulose was carried out. Figure 2 shows that considerable changes of the solution concentration affect only slightly the degree of sorption which indicates a high sorption energy. In the field of 7-8 μ in the cellulose spectrum, absorption lines are located at 1,360, 1,340, and 1,325 cm^{-1} corresponding to primary hydroxyls and decreasing in value during oxidation of the cellulose. In Figure 3, the absorption spectra of unoxidized cellulose are represented as well as those of monocarboxyl cellulose containing 12% COOH, and of oxidized cellulose treated with Ag^+ , Ca^{2+} , Pb^{2+} , and UO_2^{2+} . During cation sorption, a considerable increase of the absorption value in the given field of the spectrum is observed. The absorption spectrum for dialdehyde cellulose containing 12% CHO is given in Figure 4. There are no considerable changes in this field

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SOV-69-58-4-6/13

Spectroscopic Study of the Sorption of Metallic Cations by Oxidized Cellulose

of the spectrum. A comparison between the Figures 3 and 5 shows that for the sorption of lead and calcium on dicarboxyl cellulose greater differences are observed in the absorption field of the carboxylate groups ($1,400-1,350 \text{ cm}^{-1}$) than in the sorption of these cations on monocarboxyl cellulose. There are 6 diagrams and 30 references, 6 of which are Soviet, 17 English, 3 Finnish, 2 German, 1 French, and 1 Hungarian.

ASSOCIATIONS: Institut fiziki i matematiki AN BSSR (Institute of Physics and Mathematics of the Belorussian SSR Academy of Sciences)
Belorusskiy gosudarstvennyy universitet (Belorussian State University)

SUBMITTED: December 20, 1957
1. Cellulose--Absorptive properties 2. Cellulose--
Spectrographic analysis 3. Metal ions--Spectrographic
analysis

Card 3/3

AUTHORS: Yermolenko, I. N., Pavlyuchenko, M. M. 79-28-3-37/61

TITLE: The Oxidation Kinetics of Cellulose With Nitroger Dioxide
According to the Data of the Absorption Spectra of the
Products (Kinetika okisleniya tsellyulozy dvuokis'yu azota
po dannym spektrov pogloshcheniya produktov)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 722-728
(USSR)

ABSTRACT: Not regarding the many publications dealing with the oxidation of cellulose with NO_2 , the kinetics of this reaction has, to a great extent, not been investigated sufficiently and the formed hypotheses of the mechanism of the processes have not been proved. The application of new methods, in particular of the spectral methods, enabled the authors to find a great number of new and very interesting facts connected with the mechanism of the reaction. By means of the spectral investigations of the organic nitrites, their solutions, their nitrogen oxides in free and adsorbed state, of nitric acid and nitrous acid, of the oxidized cellulose,

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The Oxidation Kinetics of Cellulose With
Nitrogen Dioxide According to the Data
of the Absorption Spectra of the Products

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previous to and after a vacuum treatment, as well as by heating and the effect of the solvents the authors showed that in the macromolecular reaction, products formed in the oxidation of cellulose with NO_2 , besides the groups containing carboxy and carbonyl groups, a cellulose nitrite is formed in considerable quantities. In order to determine its content in the oxidation products the value of the optical density at $\lambda 365 \text{ m}\mu$ was made use of; the carboxyl groups were determined according to the modification of the optical density at $\lambda 250 \text{ m}\mu$, the carbonyl groups at $\lambda 280 \text{ m}\mu$ (Refs. 5, 19). Thus the amount of cellulose nitrite found by the authors already earlier in oxidation products of cellulose with NO_2 was determined. It was

shown that with the duration of oxidation the amount of the nitrite passes through a maximum. A maximum accumulation velocity of the carboxyles corresponds to the maximum amount of nitrite in the oxidation product. The character of the reaction process depends on the temperature. A rise of temperature reduces the amount of the carboxyl groups as well as of the nitrite. This way the cellulose nitrite discovered by

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The Oxidation Kinetics of Cellulose With
Nitrogen Dioxide According to the Data of the
Absorption Spectra of the Products

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the authors was recognized as an intermediary product in the
oxidation process of cellulose with NO₂.

There are 6 figures and 30 references, 16 of which are Soviet.

ASSOCIATION: Belorusskiy gosudarstvennyy universitet i Institut fiziki i
matematiki Akademii nauk Belorussskoy SSR (Belorussian State
University and Institute for Physics and Mathematics, AS Belo-
russian SSR)

SUBMITTED: January 14, 1956.

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Card 3/3

Principles of Selection in the Field of
Agriculture, 1930.

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Investigations by Polymers Institute in the field of
synthetic polymers and monomers (polymerization methods,
synthesis, properties, applications).

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the same time, the introduction of a new species of aquatic macrophyte may have a significant impact on the water body. The introduction of a new species of aquatic macrophyte may have a significant impact on the water body. The introduction of a new species of aquatic macrophyte may have a significant impact on the water body. The introduction of a new species of aquatic macrophyte may have a significant impact on the water body.

Governmental guidance in establishing educational standards is also a recognition of the importance of professional papers. It also recognizes that the effectiveness of research publications may be much greater if they are widely known.

It is evident from the above that the author has not been able to give a clear account of his results, and it is difficult to say whether he has obtained any new or important information.

and also the many conditions an improved apparatus.
H. H. Brabec, V. F. Bannister work in the field of low-
temperature spectroscopic studies.
F. A. Pilliarri examined the phenomena of photoconduction
and correlations of optical properties of alkylbenzyl and

relative organisms are being carried out in close cooperation with the Institute Biological students and staff (Institute of Biology, Academy of Sciences, Belgrade, Yugoslavia).

In the experiments of P. Schuster, E. C. Bolz, and L. B. Finsen, polarization, spectra, and the dependence of polarization on the wave length of fluorescence, Dr. H. Bergbreiter, Dr. V. Voigt, the observed relative data of the composition of complex compounds and the state of later-

Mr. President, I do sincerely appreciate the manner in which you have been able to study the contemplated collision by means of your personal methods.

and literature. Dr. G. Shabotov, Dr. S. Stepanov, Dr. N. Bondarenko, Dr. I. V. Kostyleva, Dr. M. Shchelokova continued the scientific process of delineation. Dr. P. Yermol'ev continued the oxidation

the cellulose with the use of desorption agents in the presence of cellulases.

of solidum products.
Mr. Stepanov, Dr. I. Sankaran, determined the dependence of the spectra of dispersed objects on the reduction of the character of the binding agent, and the layer thickness.

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APPROVED FOR RELEASE: 03/20/2001

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YERMILENKO, Igor' Nikoleyevich; PAVLYUCHENKO, M.M., red.; MARIKS, L.,
red. i zd.-va; VOLOKHANOVICH, I., tekhn.red.

[Spectroscopy in the chemistry of oxidized celluloses]
Spektroskopiia v khimii okislennykh tselliuloz. Minsk, Izd-vo
Akad. nauk BSSR, 1959. 291 p. (MIRA 13:2)

1. Chlen-korrespondent AM BSSR (for Pavlyuchenko).
(Cellulose) (Spectrochemistry)

YERMOLINCO, I.N.; GUSEV, S.S.

Methods for the measurement of the Infrared spectra of cellulose
materials. Vysokom. soed. 1 no.3:466-473 Mr '59;
(MIRA 12:10)

1:Institut fiziki i matematiki AN MSSE.
(Cellulose--Spectra)

YERMOLENKO, I.N.; GUSEV, S.S.

Quantitative determination of COOH and H₂O in cellulose
by infrared spectroscopy. Vysokom.soced. 1 no.10:1462-1468
O '59. (MIRA 13:3)

1. Institut fiziki i matematiki AM BSSR.
(Cellulose--Spectra)

YERMOLENKO, I.N.; CHURKINA, L.A.

Acting of nitrogen oxides on cellulose dissolved in phosphoric acid in
connection with the production of fire-resistant polymers. Dokl. AN BSSR 3
no.111-15 Ja '59. (MIRA 12:3)

I. Predstavlene akademikom AN BSSR N.F. Yermolenko.
(Cellulose) (Textile fibers, Synthetic)

YERMOLENKO, I.N.; ZHANKOV, R.G.

Sorption of iron by cellulose materials. Dokl. AN BSSR 3 no.5:202-204
May '59. (MTRA 12:10)

1. Predstavlenie akademikom AN BSSR B.I. Stepanovym.
(Iron) (Cellulose) (Sorption)